

THE HUNTSMAN SPIDERS *HETEROPODA* LATREILLE
AND *YIINTHI* GEN. NOV.
(ARANEAE : HETEROPODIDAE) IN AUSTRALIA

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Thirty-eight *Heteropoda* species are described, thirty-two for the first time. Cosmopolitan *H. venatoria* (Linnaeus) is described briefly and figured. Where possible the others are placed in one of five species groups. In order of description the *procera* group contains *H. procera* (L. Koch), *H. longipes* (L. Koch) and *H. binhaburra* sp. nov. *H. gordonensis* sp. nov. is unassigned to a group. The *bellendenker* group includes new species, *H. bellendenker* and *H. mossinan*. The *jugulans* group comprises *H. jugulans* (L. Koch) and the following new species, *H. alta*, *H. hillerae*, *H. caoki*, *H. nagarigoon*, *H. holovertris*, *H. vespersa*, *H. warrumbungle*, *H. distincta*, *H. eungella* and *H. conwayensis*. The *cervina* group comprises new species *H. monroei*, *H. goonaneman*, *H. spurgeon*, *H. bulburin*, *H. acuta*, *H. cervina* (L. Koch) and further new species *H. willunga*, *H. ruddle*, *H. monteithi*, *H. crediton*, *H. silvatica* and *H. cooloola*. *H. raveni* sp. nov. is unassigned to a group. The *hermitis* group contains new species *H. marillana*, *H. spenceri*, *H. hermitis* (Hogg) comb. nov., and further new species *H. cavernicola*, *H. renibulbis*, *H. kalbarri* and *H. grooteeylandt*. *Yiintli* gen. nov. is described with eight species in two groups. The *spathula* group contains *Y. lycodes* (Thorell) comb. nov., and new species *Y. spathula*, *Y. chillagoe*, *Y. malloyensis* and *Y. anzsesorum*. The *kadadu* group comprises the new species, *Y. kakadu*, *Y. gallonae* and *Y. torresiana*. *H. keyserlingi* Hogg is a junior synonym of *H. cervina* (L. Koch, 1875). *Olios hermitis* is transferred to *Heteropoda* thus *O. hermitis* = *H. hermitis* (Hogg, 1914) comb. nov. *H. fusciventris* Chrysanthus is a junior synonym of *H. lycodes* Thorell = *Yiintli lycodes* (Thorell, 1881) comb. nov. □ *Araneae, Australian Heteropodidae, new taxa.*

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Heteropoda is very widespread with over 100 species (Roewer, 1954; Brignoli, 1983; Platnick, 1989). It is one of several heteropodid genera occurring in the Indo-Australian region; recently Hirst has published revisions of *Pediana* (1989), *Isopeda* (1990), *Holconia* (1991a), *Eodelena* and *Zachria* (1991b) in Australia. Since the Australian species of *Heteropoda* were first described they have been revised by Simon (1880), Hogg (1902), and some by Jarvi (1912, 1914). Simon placed *Sarotes* Sundevall into synonymy with *Heteropoda* and resolved the confusion that resulted from Koch (1875) describing *Olios* species in *Heteropoda*. Hogg revised the Australian heteropodids (sparassids) and described a new species, *H. keyserlingi*. The spiders are large and fast moving and are common throughout coastal and near coastal areas of the northern half of Australia. In Queensland they achieve some notoriety as they are often found in suburban houses. Their bite is of minor consequence, possibly leading to local or mild general symptoms in the bitten person. Throughout

Australia, most *Heteropoda* species are found in temperate and tropical rainforests, however *H. cervina* is found in drier vine thickets as well and *H. jugulans* is widely distributed in sclerophyll eucalypt forests; the 'hermitis' species group is found in Western Australia and across northern Australia. The introduced species, *H. venatoria*, is found along the northern and eastern coasts and on islands of the Great Barrier Reef. Arising from this study a new heteropodid genus, *Yiintli* is recognised. Maps (Figs 18-20) show the distribution of species so far as this is known. An index to species is given on p. 122.

Rockhampton has been recorded as a locality for *Heteropoda nobilis* (Koch) and its junior synonym, *H. suspiciosa* (Koch). ♂ *Sarotes nobilis* Koch, ?holotype in ZMH (Rack, 1961) has been examined. Measurements and structure concur with the original description of ♂ from Upolu, Samoa. From files at ZMH the reverse side of the label with this spider indicated it was from Rockhampton (Godeffroy No. 11009). As Rack (loc. cit.) suggests this is almost certainly a

mistake. ♀ *Sarotes suspiciosus*, Koch ?syntype (ZMH) is without registration number or locality. It is the same species as ♀ *Sarotes suspiciosus* Koch from Upolu, Samoa in ZMB (No. 27010) and it is likely these are Koch's syntypes. Reference to Rockhampton as a second locality by Koch (1875: 666) is regarded as a mistaken locality. The abdominal pattern and the epigynal structure of *H. nobilis* are different from that found in any Australian *Heteropoda* sp. From the illustrations of *H. sartrix* (L. Koch, 1865) it appears not to belong in *Heteropoda*. *H. mindipitanensis* Chrysanthus, *H. rubra* Chrysanthus, *H. atriventris* Chrysanthus, *H. erythra* Chrysanthus and *H. sarotoides* Jarvi from Irian Jaya and Papua New Guinea have been examined; none has been found in Australia.

MATERIALS AND METHODS

Most of the material is lodged in the Queensland Museum (QM). For this study 'mideastern' Queensland is that area between latitudes 20°-25°S, 'northeastern' Queensland is to its north and 'southeastern' Queensland to its south; the Great Dividing Range roughly forms the western boundary of these areas. All measurements are in millimetres and are based upon ocular eyepiece measurements. Epigyna were excised and cleared in lactic acid.

A numeral preceding ♀ or ♂ in the lists of paratypes indicates more than one specimen, e.g. 2♂, 2♀ indicates 2 males and 2 females. In notating spines, the number on femora, patellae and tibiae is always given in the same order - pro-lateral, dorsal, retrolateral and ventral (present only on tibiae and metatarsi); numbers only are given without punctuation, e.g. tibiae III 2026. Characters given in the generic diagnoses are for the most part not repeated in the species descriptions.

Size classes. Female spiders are all large ranging between 8.0-25.0mm. Within this range the relatively small (8.0-13.9), medium (14.0-19.9) and large (20.0+) females are distinguished. Males of a species are usually smaller and may vary greatly in size.

ABBREVIATIONS USED

COLLECTORS: AE, Australian New Zealand Schools Exploration Society; AR, A. Rozefelds; CH, C. Horseman; DC, D. Cook; DJ, D. Joffe; DY, D. Yeates; EWQM, Earthwatch - Queensland Museum expedition; GJI, G.J. Ingram; GBM, G.B. Monteith; GT, G. Thompson;

GVC, G.V. Czechura; HJ, H. Janetzki; JC, J. Covacevich; JG, J. Gallon; KRM, K.R. McDonald; LR, L. Roberts; NH, N. Hall; MG, M. Gray; PF, P. Filewood; RK, R. Kohout; RJM, R.J. McKay; RJR, R.J. Raven; RM, R. Monroe; SRM, S.R. Monteith; SVD, S. Van Dyck; VED, V.E. Davies.

MORPHOLOGY: AL, abdomen length; AW, abdomen width; CL, carapace length; CW, carapace width. ALE, anterior lateral eyes; AME, anterior median eyes; PLE, posterior lateral eyes; PME, posterior median eyes; MOQ, median ocular quadrangle; AR, anterior row; PR, posterior row. ALS, anterior (lateral) spinnerets; PMS, (posterior) median spinnerets; PLS, posterior (lateral) spinnerets. See text for abbreviations on scanning micrographs. Abbreviations for museums are given in the 'Acknowledgements' section.

SYSTEMATICS

Family HETEROPODIDAE (SPARASSIDAE AUCT.)

The heteropodids, commonly known as 'huntsman spiders' are claw-tufted, 2-clawed spiders without cribellum or colulus. Most are laterigrade and the second pair of legs is the longest. The soft trilobate membrane distally on all metatarsi is the synapomorphy for the group; see Levy (1989: Fig. 1) for illustration. Metatarsi and tarsi with dense scopulae; tarsal claws pectinate in a single row; ♀ palp with claw. Two rows of four eyes which reflect torch-light at night; the tapetum is covered with uniform pores in *Heteropoda* and *Holconia*. Chelicerae free with 2 rows of marginal teeth.

Subfamily HETEROPODINAE

Roewer (1954) included two Australian genera, *Heteropoda* and *Pandercetes* in the Heteropodinae; Hirst (1989) added *Keilira*. In all of these the embolus is uncoiled and the epigynum lacks a sclerotized rim. These characters distinguish them from the Australian Eusparassinae (*Holconia*, *Isopoda*, *Isopodella*, *Beregama*, *Typostola*, *Zachria*) and the Deleninae (*Delena* and *Neosparassus*) in which the embolus is in a stack of coils and the epigynum has a sclerotized lateral rim. Brignoli (1983) listed the Heteropodidae alphabetically as he was "unable to decide on the value of the traditionally accepted subfamilies". Platnick



FIG. 1. ♀ *H. jugulans*, Brisbane.

(1989) also lists the heteropodids alphabetically. *Pandercetes* is a grey-green tree-dwelling spider from northern Queensland rainforest and is easily distinguished from *Heteropoda* and *Yiinthi* gen.nov. by its colour and the lateral fringes of hair on the legs. *Keilira* is a small speckled spider from SE South Australia and SE Victoria, also easily distinguished from *Heteropoda* and *Yiinthi* gen.nov.

Heteropoda and *Yiinthi* gen.nov. have a characteristic and similar colour pattern (Fig. 1). Cephalic region orange-brown with darker brown laterally and in eye region. Thoracic region orange-brown, a broad light-coloured band posteriorly which may extend laterally; small dark areas marginally, slightly anterior to each leg position; dark patch at anterior end of fovea and large dark crescent-shaped area around posterior end of fovea that spreads forwards to a variable extent; usually 4 pairs of dark lines radiating towards legs. Chelicerae brown with 3 longitudinal bands of hair. Legs brown, femora light coloured, tibiae orange-brown, metatarsi and tarsi often dark brown. Dorsal abdomen with 3 pairs of dark spots and broad open W or chevron of dark hair posteriorly; venter pattern variable.

Carapace a little longer than wide, broadly pear-shaped. Thoracic region of carapace higher than cephalic region in females; regions usually level in males. Chelicerae with 3 teeth on promargin - middle tooth largest - and 4 teeth on retromargin with proximal tooth the smallest; a cluster of denticles (Fig. 3C) inside promarginals. Endites longer than wide with serrula; labium about as wide as or wider than long; sternum about as wide as long. Both rows of eyes recurved (with one exception); eye group about twice as wide as long; MOQ longer than wide, sometimes barely so. Median eyes smaller than laterals; AME smallest, closer to ALE than each other; PME closer to each other than to PLE. Clypeus usually about x2 AME (Fig. 11C). Second pair of legs always longest; first pair of legs usually second longest, though sometimes fourth pair is equal to or slightly longer than first. Tegulum of ♂ palp varies in shape; embolus long; conductor membranous, long; without median apophysis; ♂ tibial apophysis well developed without dorsal element. Epigynum consists of external lateral lobes and a median septum that varies in shape; internal insemination ducts arise (at gonopores) on either

side of septum and lead to spermathecae; short fertilization ducts connect with the uterus.

MAIN TAXONOMIC CHARACTERS

Ventral abdominal pattern. The trapezoid area between the epigastric furrow and spinnerets may be pale, mottled but show no definable pattern, or have a constant darker pattern relieved by pale lines or lines of pale spots.

Male palp. Shape of the tegulum, presence or absence of a tegular process and direction in which it points are considered. Origin of the embolus on the tegulum may be antero-, mid- or postero-retrolateral; embolus may be filiform or thick and have a flagellum. Origin and length of the tegular flange is diagnostic for some species. Conductor may taper to a point or be spoon-shaped distally. Presence and position of "tooth" on tibial apophysis is noted.

Epigynum. Insemination ducts may be narrow, wide, coiled or bag-like; if coiled the number of coils is usually diagnostic. When counting coils the looped apex formed by the duct before it runs back through the coils to the spermatheca is not counted.

KEY TO GENERA

- ♀ insemination ducts coil forward one (occasionally reduced to 1/2) or more times, fold back to run through centre of coil(s) to spermathecae. ♂ embolus long and filiform *Heteropoda*
- ♀ wide short insemination ducts; loosely looped elongate spermathecae. ♂ long thick embolic structure with *pars pendula* and sub-terminal flagellum *Yiinhi*

Heteropoda Latreille, 1804

- Heteropoda* Latreille, 1804: 135; Simon, 1880: 267; Hogg, 1902: 416; Jarvi, 1914: 197 [nec Koch, 1874, 1876].
- Sarotes* Sundevall, 1833: 28 (type species *Aranea regia* Fabr.); C.L. Koch, 1837: 27; L. Koch, 1874: 494; L. Koch, 1876: 659; synonymy by Simon, 1880: 267.
- Ocyptea* C.L. Koch, 1836: 40 (type species *Micrommata setulosa* Peris, 1833 = *H. venatoria*); synonymy by Simon, 1880: 267.
- Ethilla* Simon, 1874, p.267 (type species *Ethilla variegata* Simon, 1874); synonymy by Simon, 1880: 267.

TYPE SPECIES

Aranea venatoria Linnaeus by subsequent designation of Thorell (1870).

DIAGNOSIS (Australian spp.)

Thick membraneous conductor arises prolaterally on proximal tegulum and tapers to a point; it twists so that inner edge becomes outer edge distally. Embolus, long and filiform arises retrolaterally on distal tegulum and curves down, across and forward to lie on outer edge of conductor. In most species insemination ducts coil forward one or more times then fold back to run through centres of coils to spermathecae.

DESCRIPTION

Dorsal abdomen with 3 pairs of dark spots and broad open W of dark hair posteriorly. Legs laterigrade, 2143 or 21=43. Scopulae on all metatarsi and tarsi. Tarsi short, less than a third as long as metatarsi. Spines usually present on femora, patellae, tibiae and metatarsi; none on tarsi. Femora I-III almost always have 3 prolateral, 2 dorsal and 3 retrolateral spines (abbreviated to '323' throughout), femora IV usually have only 1 retrolateral spine (321). Patellae I-IV have 1 prolateral, 0 dorsal, 1 retrolateral (101), occasionally a spine is absent. Tibial spines show more variation; in males there are 2 prolateral, 2 or 3 dorsal, 2 retrolateral and 6 (in pairs) ventral spines (22(3)26); in females there are usually 2 prolateral, 0 or 2 dorsal, 2 retrolateral and 6 ventral spines (20(2)26). Metatarsal spines are many and variable. Many trichobothria (Fig. 3A) in two lateral groups on proximal tibiae, dorsal and retrolateral metatarsi, and in 2-3 irregular, distally diverging rows on tarsi. Small tarsal organ (Fig. 3B) far forward on retrolateral face of tarsus near base of claw.

Male palp (Fig. 2A-C, E-M). Sub-tegulum saucer-shaped. Proximal tegulum flat with prolateral flange, distal tegulum (referred to as 'tegulum') bulbous with or without posterior prolateral process (tegular process). Membraneous conductor long and tapering to a point. Embolus, long and filiform, occasionally rounded or bifid at tip. Insemination ducts with between half a coil and seven coils before entering spermathecae.

Spinnerets of H. jugulans (Fig. 3D-I). ALS broader but shorter than PLS. ALS have two major ampullate gland spigots (Map) and many piriform spigots (pi) arranged in 2 groups. In the female the PMS have three anteromedian spigots (Fig. 3F-H), two of which are absent in the male

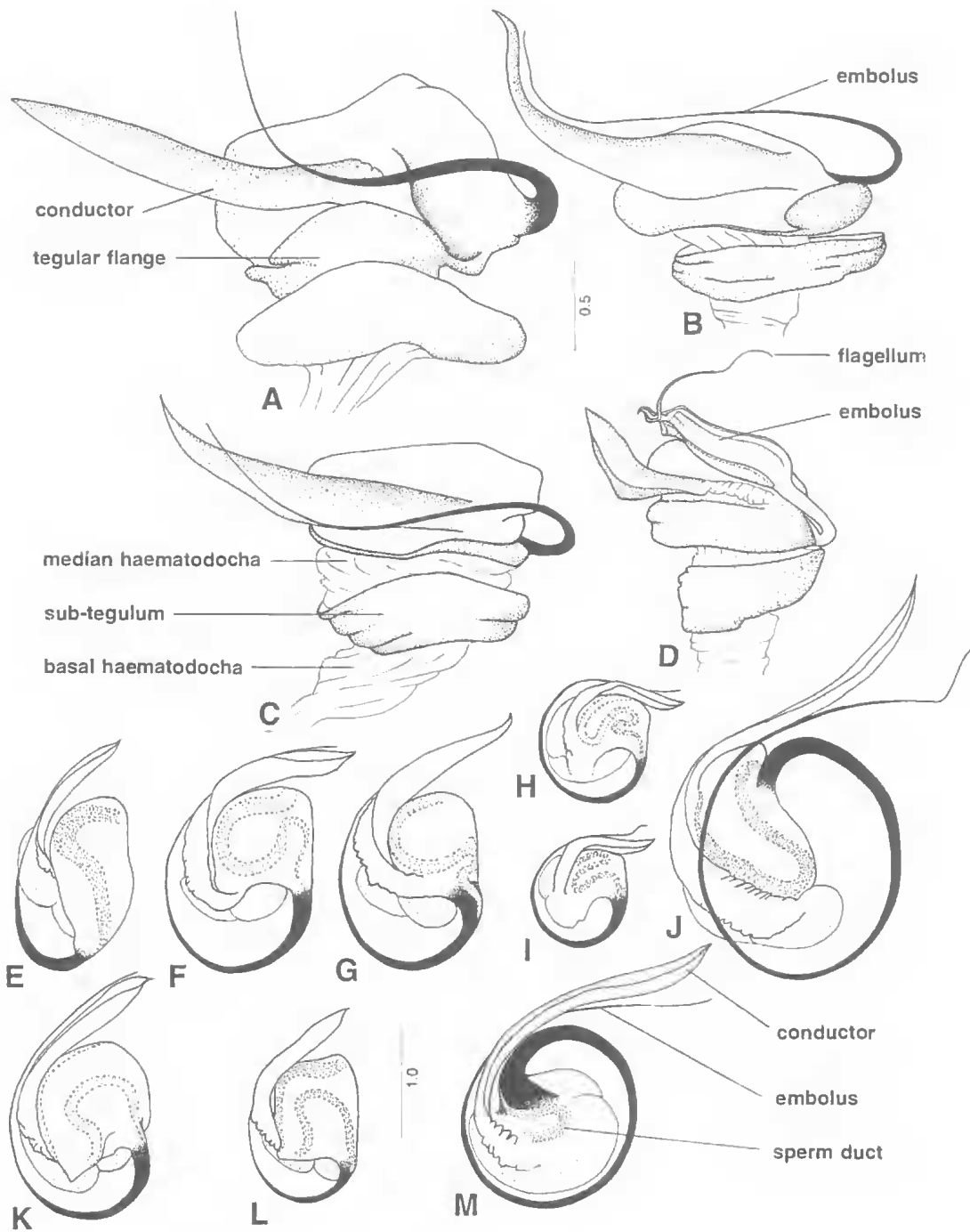


FIG. 2. A, *Heteropoda venatoria*; B, *H. procera*; C, *H. jugulans*; D, *Yiinthi spathula*; E, *H. venatoria*; F, *H. procera*; G, *H. longipes*; H, *H. mossman*; I, *H. bellendenker*; J, *H. renibulbis*; K, *H. jugulans*; L, *H. cervina*; M, *H. marillana*. A-M, ♂ palps (A-D, expanded; E-M, bulbs showing origin of embolus and course of sperm duct).

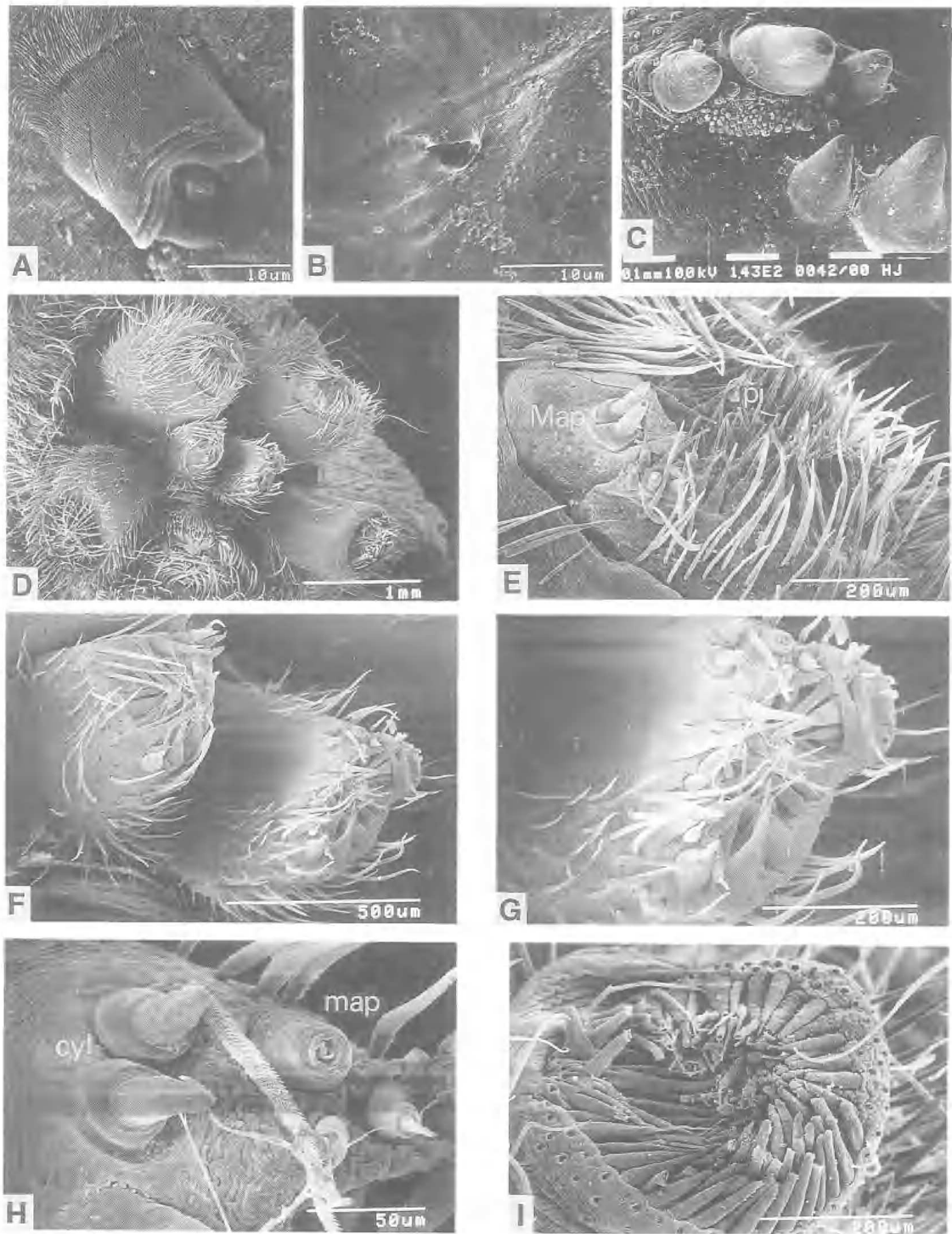


FIG. 3. *Heteropoda jugulans*. A, bothrium; B, tarsal organ; C, denticles between cheliceral teeth; D, ♀ spinneret field; E, anterior spinnerets; F-H, median spinnerets; I, posterior spinnerets.

and are presumably cylindrical gland spigots (cyl). The third spigot is also present in the ♂ and is regarded as the minor ampullate gland spigot (map); a scar (? tartipore) is also present in this area in the male. An enlarged posterior spigot in the ♀ may also be a cylindrical gland. Other spigots varying in size are regarded as aciniform spigots; in the male these are uniform in size. The PLS have many aciniform spigots.

KEY TO AUSTRALIAN *HETEROPODA* SPP.

1. Lateral lobes of ♀ epigynum closely apposed (Fig. 4A). ♂ tegulum almost twice as long as wide; tapering posteriorly (Fig. 2E) *venatoria*
Lateral lobes of ♀ epigynum separated by median septum (Figs 4L, 6C). ♂ tegulum otherwise 2
2. ♀ median septum flat or rounded; insemination duct with ½-3 coils (Fig. 4D). ♂ embolus arising posteriorly on tegulum (Fig. 2F) 3
♀ median septum with longitudinal ridge (at least anteriorly) (Fig. 13G); insemination duct with ½ or 3½-7 coils. ♂ embolus arising anteriorly or antero-retrolaterally on tegulum (Fig. 2J) 31
3. ♀ median septum short with narrow neck region (usually in concavity) broadening to transverse bar posteriorly (Fig. 4H). ♂ without tegular process or postero-prolateral tegular bulge (Fig. 2G); short prolateral tegular flange about half as long as tegulum (Fig. 2B) 4
♀ median septum long, tongue-like with slight narrowing of neck (not in concavity) (Fig. 6C). ♂ with tegular process (Fig. 6E) or bulge postero-prolaterally (Fig. 9E) sometimes reduced (Fig. 10A); long prolateral tegular flange almost as long as tegulum (Fig. 2C) 9
4. Medium-large. ♀ insemination duct less than 1 coil. ♂ tegular flange arising posteriorly and extending forward to half-way up tegulum; embolus tapering to tip; tibial apophysis tapering to point (Fig. 4E) *procera* group 5
Small-medium. ♀ insemination duct ½-1½ coils. ♂ tegular flange arising mid-laterally and extending to anterior end of tegulum; embolus with rounded or branched tip; tibial apophysis. flat distal blade (Fig. 7B) 7
5. ♀ median septum evident (Fig. 4C,H). ♂ tibial apophysis long, slender. No dorsal spines on ♂ tibiae IV *procera*
♀ median septum evident or barely so. ♂ tibial apophysis short, stout. Two-3 dorsal spines on ♂ tibiae IV 6
6. Neck of median septum barely evident (Fig. 4F). ♂ tibial apophysis tapering to point (Fig. 5F). Two dorsal spines ♂ tibiae III *longipes*
Neck of median septum clearly evident (Fig. 4L). ♂ tibial apophysis ending bluntly (Fig. 5H). Three dorsal spines ♂ tibiae III *binnaburra*
7. Medium size. Trapezoid area of venter brown with 2 pale paramedian stripes. ♀ insemination duct with ½ coil. Tegular flange normal width; embolus bifid (Fig. 4P); tibial apophysis without marked heel *gordonensis*
Small. Venter mottled. ♀ insemination duct 1-1½ coils. Tegular flange broad giving car-shaped appearance (Fig. 2H); embolus with rounded tip; tibial apophysis anvil-shaped with proximal heel (Fig. 7B). flat distal blade *bellendenker* group 8
8. ♀ insemination duct with one coil. ♂ sperm duct with one main tegular loop before entering embolus (Fig. 2I), tibial apophysis up-turned at tip *bellendenker*
♀ insemination duct with 1½ coils. ♂ sperm duct with second small loop before entering embolus (Fig. 2H); tibial apophysis down-turned at tip *mossman*
9. ♀ median septum clearly shorter than lateral lobes. ♂ tibial apophysis without tooth *jugulans* group 10
♀ median septum almost as long as or longer than lateral lobes (Fig. 11D). ♂ tibial apophysis with tooth (Fig. 11F) *cervina* group 20
10. Trapezoid area of venter with dark V pattern (Fig. 6B). ♀ insemination duct with 2-3 coils. ♂ tegular process pointed in posterior direction (Fig. 2K) 11

- Trapezoid area of venter, pale, mottled (occasionally with V pattern) or dark with pattern of light spots. ♀ insemination duct with less than 2 coils. ♂ tegular process pointed in posterior or pro-lateral direction, blunt or reduced 12
11. ♀ insemination duct with 2 coils (Fig. 6D)
jugulans
 ♀ insemination duct with 3 coils (Fig. 6I)
alta
12. Trapezoid area of venter pale or mottled . . . 13
 Trapezoid area of venter dark with two pale longitudinal bands 18
13. Trapezoid area mottled. ♂ tegular process pointed or low rounded pro-lateral bulge . . . 14
 Trapezoid area pale. ♂ tegular process, a postero-pro-lateral bulge or reduced 16
14. Medium size. Venter mottled with darker V pattern posteriorly. ♀ insemination duct one coil. ♂ tegular process pointing posteriorly (Fig. 7H) *hillerae*
 Medium-large. Venter without V pattern. ♀ insemination duct. ♂ tegulum with blunt process or rounded pro-lateral bulge 1-1½ coils 15
15. Large. ♀ insemination ducts 1-1½ coils. ♂ tegular process directed ventro-pro-laterally
cooki
 Medium. ♀ insemination ducts one coil. ♂ low rounded postero-pro-lateral tegular bulge (Fig. 9B) *nagarigoon*
16. ♀ insemination duct ½ coil. ♂ tegular process reduced to tiny pro-lateral hump (Fig. 9C); tibial apophysis distally bifurcate (Fig. 9D) *holoventris*
 ♀ insemination duct 1½ coils (Fig. 8G). ♂ rounded postero-pro-lateral tegular bulge (Fig. 9E); tibial apophysis pointed 17
17. Medium. Two dorsal spines ♂ tibiae III, IV.
vespersa
 Large. Three dorsal spines ♂ tibiae III, IV (♀ unknown) *warrumbungle*
18. Trapezoid area of venter with 2 pale irregular longitudinal bands (Fig. 8K). ♀ insemination duct with 1½ coils. ♂ tegular process pointed in ventro-pro-lateral direction (Fig. 9G) *distincta*
- Trapezoid area of venter with 2 pale stripes or lines of spots. ♀ insemination duct with ½-1 coil. ♂ tegulum with or without rounded pro-lateral bulge 19
19. Trapezoid area with 2 short, thick median stripes. Sternum patterned (Fig. 8N). ♂ tibia III with 1 dorsal spine; rounded pro-lateral tegular bulge (Fig. 9I). ♀ neck of median septum narrow; insemination duct with 1 coil *eungella*
 Trapezoid area with 2 lines of 2-7 white spots (Fig. 8Q). Sternum unpatterned. ♂ tibia III with 2 dorsal spines; without tegular bulge (Fig. 10A). ♀ neck of median septum gradually widening, triangular in shape; insemination duct with ½ coil . . . *conwayensis*
20. ♂ without pointed tegular process, with slight round bulge on postero-pro-lateral tegulum (Fig. 10C) (♀ unknown)
monroei
 ♂ with pointed tegular process 21
21. ♀ median septum almost as long as lateral lobes (Fig. 8R); insemination duct with 1 coil. ♂ tegular process pointing pro-laterally (Fig. 10E); tibial apophysis broad, sharply truncated with marginal tooth on posterior corner (Fig. 10F) *gouanemana*
 ♀ median septum as long as or longer than lateral lobes; insemination duct with ½-3 coils. ♂ tegular process pointing pro-laterally or posteriorly; tibial apophysis rounded distally with central or sub-marginal tooth 22
22. Trapezoid area of venter pale or mottled 23
 Trapezoid area of venter dark with two longitudinal pale stripes or lines of spots 25
23. ♀ insemination duct 1½ coils (Fig. 8U) (♂ unknown) *spurgeou*
 ♀ insemination duct less than 1 coil 24
24. ♀ median septum extending to lateral lobes; insemination duct loose ¾ coil (Fig. 8W). ♂ tibial apophysis distally bifid with tooth on posterior branch (Fig. 10H)
bulburin
 ♀ median septum extending beyond lateral lobes; insemination duct tight ½ coil (Fig. 11B). ♂ tibial apophysis rounded distally

- with sub-distal tooth on posterior edge (Fig. 10I) *acuta*
25. ♂ tegular apophysis pointed in ventro-prolateral direction; tibial apophysis with large central tooth (Fig. 11F)26
 ♂ tegular apophysis pointed in posterior direction; tibial apophysis with smaller posterior, sub-marginal tooth (Fig. 12I). . . .29
26. Large. ♀ insemination duct with 1-1½ coils. ♂ tibia III, 3(2) dorsal spines. Embolus reaching three-quarter length of conductor27
 Small-medium. ♀ insemination duct with 2-3 coils. ♂ tibia III, 2 dorsal spines, Embolus reaching almost to end of conductor28
27. ♀ median septum width: length, 1:3; insemination duct with 1½ coils, tight apical fold (Fig. 11E) *cervina*
 ♀ median septum width: length, 1:2; insemination duct with 1 coil, loose apical fold (Fig. 11H) *willunga*
28. ♀ insemination duct with 2 coils (Fig. 11J) *rundle*
 ♀ insemination duct with 3 coils (Fig. 11L) *monteithi*
29. Large. ♀ median septum extending to lateral lobes; insemination duct 3 coils (Fig. 11Q). Sperm duct with small coil before entering embolus *crediton*
 Medium size. ♀ median septum extending beyond lateral lobes; insemination duct with less than 3 coils. Sperm duct without coil before entering embolus30
30. ♀ insemination duct with 2 loose coils and tight apical fold (Fig. 11T). ♂ tegulum about as wide as long *silvatica*
 ♀ insemination duct with 1 coil and loose apical fold (Fig. 11N). ♂ tegulum visibly longer than wide (Fig. 14A) *cooloola*
31. Clypeus more than X 2 AME (Fig. 13C). MOQ as wide as long. Legs 2413. ♀ insemination ducts ½ coil (♂ unknown) *raveni*
 Clypeus less than X 2 AME. MOQ slightly longer than wide. Legs 2143 or 21=43. ♀ insemination ducts 3½-7 coils *hermitis* group32
32. Small, round, distal tegulum (Fig. 13F); tibial apophysis forming about 45° angle with axis of cymbium; distal hook on posterior edge of apophysis (♀ unknown) *marillana*
 Kidney-shaped, oval tegulum (Fig. 14C); tibial apophysis forming smaller angle with axis of cymbium, without hook on apophysis33
33. ♀ median septum with short broad anterior ridge; insemination duct with 3½ coils34
 ♀ median septum with longer ridge reaching at least half-way (Fig. 15A); insemination duct with 5 or more coils36
34. ♀ median septum heart-shaped narrowing posteriorly (Fig. 13D) (♂ unknown) *spenceri*
 ♀ median septum not heart-shaped, as wide or wider posteriorly35
35. ♀ median septum as long as lateral lobes (Fig. 13I). *hermitis*
 ♀ median septum shorter than lateral lobes (Fig. 13G) (♂ unknown) *caverucola*
36. Ridge on median septum running about half length of septum; 6-7 coils in insemination ducts *renibulbis*
 Ridge on median septum running length of septum; 5 coils in insemination ducts37
37. Median septum broadening in middle, shorter than lateral lobes (Fig. 15A) (♂ unknown) *kalbarri*
 Median septum more or less parallel-sided, longer than lateral lobes (Fig. 15C) (♂ unknown) *grooteeilandt*

Heteropoda venatoria (Linnaeus, 1767)
 (Figs 2A,E; 4A,B; 5A,B; 18)

Aranea venatoria Linnaeus, 1767: 1035.
Aranea regia Fabricius, 1793: 408.
Heteropoda venatoria: Latreille, 1804: 135; Simon, 1880: 268; Bonnet, 1957: 2196.
Micrommata setulosa Perty, 1833: 195.
Olios leucosius Walckenaer, 1837: 566.

MATERIAL EXAMINED
 Spiders from Brisbane, Rockhampton, Townsville, Heron I., North West Islet, Thursday I., (Queensland); Balmoral (New South Wales); Darwin (Northern Ter-

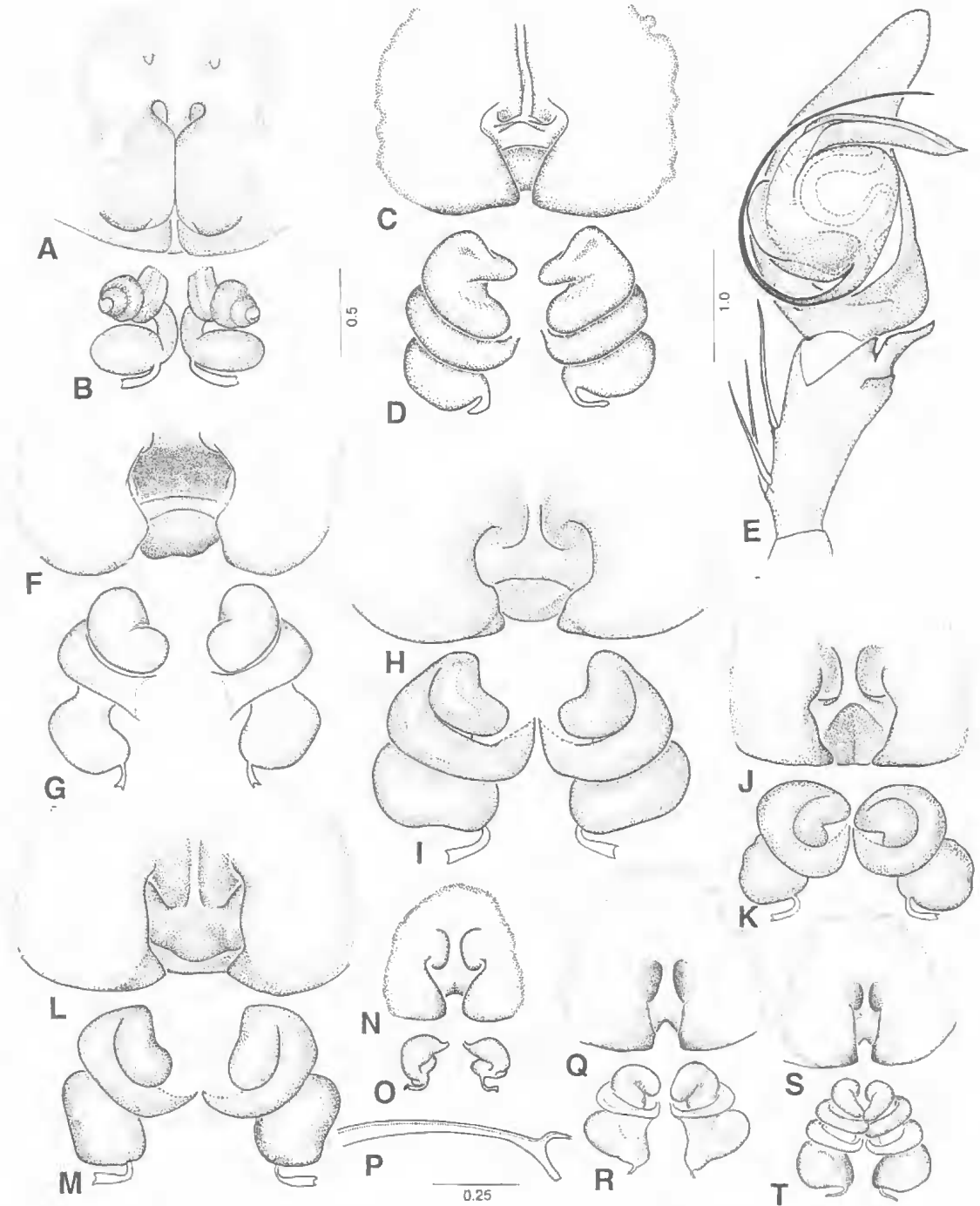


FIG. 4. A,B, *Heteropoda venatoria*; C-E, H-K, *H. procera* (C,D paratype; H, I, Brisbane; J,K, Gibraltar Ra.); F,G, *H. longipes*; L,M, *H. binnaburra*; N-P, *H. gordonensis*; Q-R, *H. bellendenker*; S-T, *H. mossman*. A-D, F-O, Q-T, external and internal epigyna; E, ♂ palp; P, ♂ embolus.

ritory); Cocos Keeling Is and Christmas I (Indian Ocean).

DIAGNOSIS

Large spiders. Dorsal abdomen with dark medial band anteriorly; venter yellow-brown without pattern or with 2 fine paramedial brown lines. Clypeus with marked band of white hairs. Cymbium of male usually with spine on prolateral edge of alveolus. Tegulum twice as long as wide; embolus filiform; sheath-like conductor arising on distal half of prolateral tegulum, prolateral flange of tegulum broad and short, unattached to tegulum distally; tibial apophysis short, distally indented (Fig. 5A,B). Lateral lobes of epigynum touching medially; insemination ducts coiled dorsally (rather than anteriorly) with 1½ coils (Fig. 4A,B).

DESCRIPTION

Male: Carapace length about 8mm. Spination: femora I-II 323, III 333, IV 331; patellae I-IV 101; tibiae I, II 2326, III, IV 2226.

Female: Carapace length about 10mm. Spination femora I, II 323, III 333, IV 331; patellae I-IV 101; tibiae I-IV 2026.

DISTRIBUTION

Pantropical; in coastal areas of Australia and on Great Barrier Reef islands (Fig. 18).

REMARKS

Further figures of *H. venatoria* are given in Chrysanthus (1965). Details of synonymy are given in Bonnet (1957) and Roewer (1954).

THE PROCERA GROUP

Medium to large spiders. Venter pale or with posterior mottling. MOQ longer than wide; clypeus a little longer than AME. Three dorsal spines on femora III and IV. Smooth, rounded tegulum without process or bulge; short wide prolateral tegular flange about half as long as tegulum; tibial apophysis smooth, without 'tooth'. Short ♀ median septum with narrow to barely evident anterior region, broadening to transverse bar; insemination ducts less than one coil.

Heteropoda procera (L. Koch), *H. longipes* (L. Koch), *H. binnaburru* sp. nov.

Heteropoda procera (L. Koch, 1867) (Figs 2B,F; 4C-E, H-K; 5C,D; 19A)

Oecypete procera L. Koch, 1867: 205.

Sarotes procerus: L. Koch, 1875: 660, 667.

Heteropoda procera: Simon, 1880: 270; Hogg, 1902: 416.

TYPE MATERIAL

Oecypete procera. The holotype ♂ from Brisbane, was not located in the Naturhistorisches Museum, Vienna. However the ♂ *Sarotes procerus*, as re-described by Koch (1875), which has almost identical measurements to those ascribed to the holotype was examined: ♂, Bowen, BMNH1915.3.5.6467. This locality is questioned (see later remarks) and the specimen is regarded as the probable holotype from Brisbane.

♀ *Oecypete procera* paratype, Brisbane, Godeffroy No. 2262, ZMH.

OTHER MATERIAL EXAMINED

Southeastern Queensland: ♂, Brisbane, QMD15015; ♀, Mt Archer, Kilcoy, QMS15095; ♂, Gold Ck., Brookfield, QMS15073; ♀, Hidden Valley Plantation, Beerwah, QMS15096; ♂, Teviot Brook, QMS15049; 2 ♂, Casey Ck via Imbil, QMS15102; ♂, Booloomba Ck, QMS15098; ♂, Boyce Reserve, Toowoomba, QMS15104; ♀, QMS15100; ♀, Eumundi, QMS15053. ♀, Bunya Mts National Park, QMS15106; 20 ♂, 19 ♀, Dandabah, Bunya Mts National Park, QMS15110; ♂, Closeburn, QMS15052; ♀, Cooloola, QMS15099; 2 ♀, Kilcoy Ck, QMS15094; 2 ♂, ♀, Daves Ck Country, Lamington National Park, QMS15109; ♂, O'Reillys, QMS15045. ♀, Mt Glorious, QMS15060; ♀, QMS15088; ♂, QMS15086; ♂, QMS15504. ♀, Mt Tamborine, QMS21001; ♂, QMS15050; ♂, North Stradbroke Is. Point Lookout, QMS15090; ♂, Slipping Sands, QMS15047; ♂, Conondale Range, QMS15051; ♂, Cunninghams Gap, QMS15048. Mideastern Queensland: ♀, Kroombit Tops State Forest, QMS15093; ♂, ♀, Beauty Spot, QMS15078. ♀, Three Moon Ck, QMS15071; ♂, QMS15072; 3 ♂, Beauty Spot, QMS15092; ♂, ♀, QMS15083; ♀, QMS15055; ♀, QMS15070; ♀, QMS15054; ♀, Kroombit Crossing, QMS15079. ♂, Bulburin State Forest, QMS15075. New South Wales: ♀, Gibraltar Ra., QMS15076.

DIAGNOSIS

Medium to large. Trapezoid area of venter pale without mottling. Tegulum almost as wide as long; tibial apophysis smooth, slender. Anterior median septum of epigynum narrow, clearly evident.

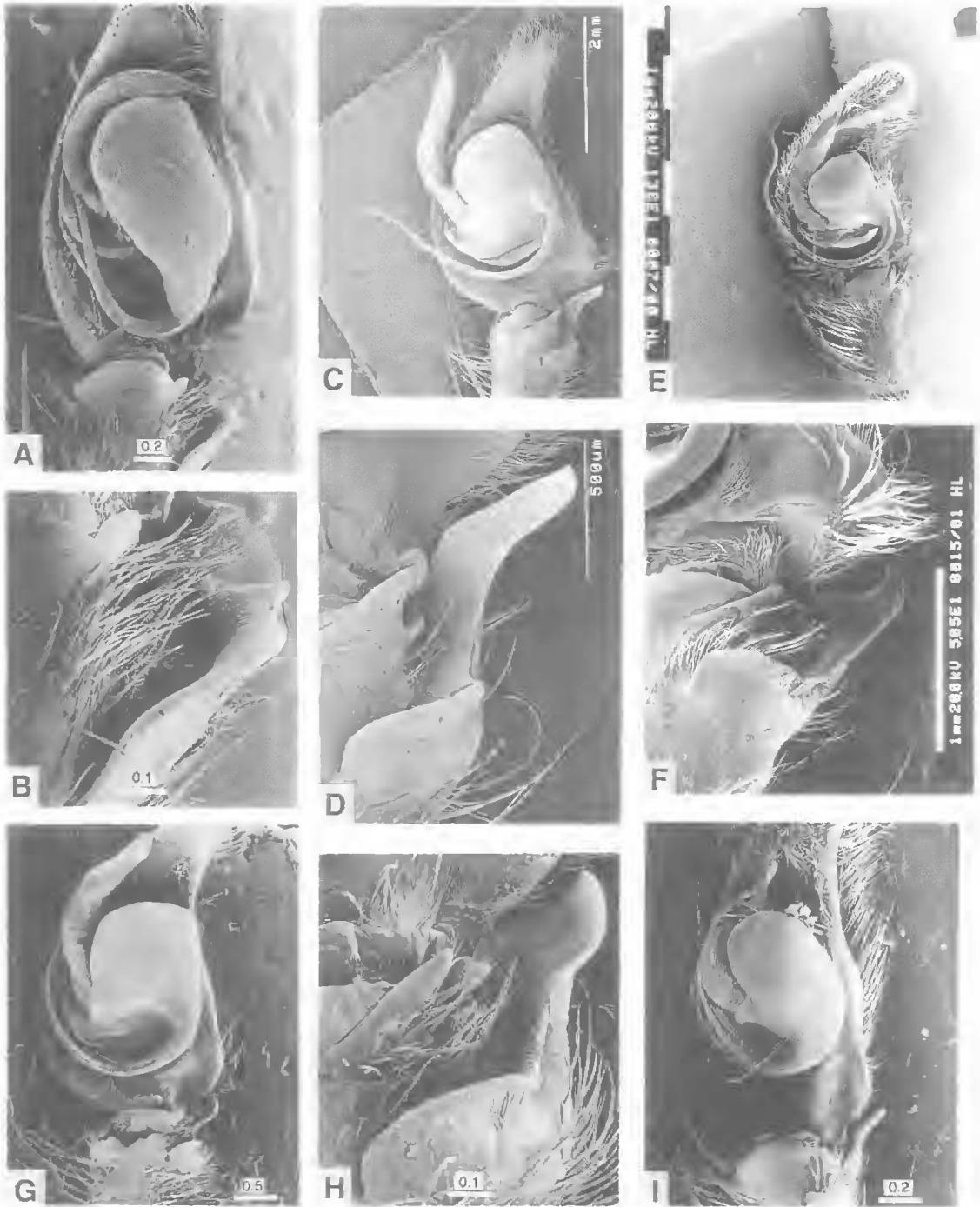


FIG. 5. A,B, *Heteropoda venatoria*; C,D, *H. procer*a; E,F, *H. longipes*; G,H, *H. binnaburra*; I, *H. gordonensis*. A-I, ♂ palps and tibial apophyses.

DESCRIPTION

Male (presumed holotype): CL 8.0, CW 7.6, AL 9.0, AW 5.3. Spination: femora I, II 323, III 333, IV 331, patellae I-III 101, IV 001; tibiae I, II 2326, III 2226, IV 2026. ♂ palp (Figs 4E; 5C,D). Variation: Dorsal tibial spines on males from Kroombit Tops were erratic III 2(3), IV 1(2).

Female (paratype): CL 9.2, CW 8.3, AL 12.7, AW 8.0. Spination: femora I, II 323, III 333, IV 331; patellae I, II 101, III 001, IV 000; tibiae I, III, IV 2026, II 2126. Epigynum (Fig. 4C,D,H,I): insemination duct with half a coil. Variation: depth of the transverse bar of the median septum varied between females from different localities. Those from the Gibraltar Range, N.S.W. (Fig. 4J,K) may warrant a new species when the ♂ is described.

REMARKS

Originally Koch (1867) described a male and female from Brisbane. In redescribing the species, Koch (1875) did not assign his male or female to a specific locality. The male, described before the female, is presumed to be from Bowen, the first locality that Koch (1875) mentioned. Measurements of the male given by Koch (1867, holotype) and Koch (1875, given in brackets) agree remarkably closely: CL, 8(8); leg I, 44(44); leg II, 50(50); leg III, 38(37.5); leg IV, 37(38); they also agree fairly closely with measurements (by RJR) of palp and legs of the presumed holotype (8.08, 41.83, 49.97, 36.66, 39.95). The spination of the femora, patellae and tibiae, agree exactly with that described by Koch (1867). Therefore, it is presumed that the BMNH male is the holotype and that the locality label in the vial is incorrect; it should be Brisbane. This view is supported by the absence of *H. procera* in collections north of Bulburin State Forest, 24°31'S, 151°29'E (Fig. 19A).

***Heteropoda longipes* (L. Koch, 1875)**
(Figs 2G; 4F,G; 5E,F; 18)

Sarotes longipes L. Koch, 1875: 659, 660.

Heteropoda longipes: Simon, 1880: 269; Strand, 1907: 464.

TYPE MATERIAL

HOLOTYPE ♂, Sydney, New South Wales, Koch coll. BMNH1915.3.5.6463. Koch (1875: 662) stated that his material came from the Bradley Collection.

OTHER MATERIAL

New South Wales: ♂, ♀, Lindfield, Sydney, AMKS15769; ♀, Bondi, Sydney, AMKS15762; ♂, Clifton Gardens, Sydney, AMKS15764; ♀, Longueville, AMKS15765; 2♀, ♂, O'Sullivan's Gap, SAMAN1990328-30; ♀, Comboyne Cave, KSS-C4, AMKS803; ♂, Carrai Bat Cave, KS5, 80km W of Kempsey, AMKS804; ♂, Kiwarrak State Forest nr Taree, AMKS6308; ♀, Watagan State Forest nr Morrisset, AMKS8957; ♂, MacGrath I, Myall Lakes, AMKS15763; ♂, Upper Missabotti nr Bowraville, AMKS16299; ♂, Avoca, AMKS19620.

DIAGNOSIS

Pale venter with posterior mottling. Tegulum slightly wider than long; tibial apophysis short, stout with curved tapered tip (Fig. 5E,F). Anterior median septum of epigynum barely evident, leaving only transverse bar (Fig. 4F,G).

DESCRIPTION

Male (Lindfield): CL 8.0, CW 7.8, AL 8.8, AW 6.3. Holotype: CL 7.5, AL 8.0. Spination: femora I, II 323, III 333, IV 331; patellae I-III 101, IV 000; tibiae I-III 22(3)26, IV 2126.

Female (Lindfield): CL 8.3, CW 7.5, AL 10.0, AW 6.0. Spination: femora I, II 323, III 333, IV 331; patellae I-III 101, IV 100; tibiae I, IV 2026; II, III 2126. Epigynum: insemination duct less than one coil.

REMARKS

Strand's (1907) male *H. longipes* was in the Stuttgart Collections that were destroyed.

***Heteropoda binnaburra* sp. nov.**
(Figs 4L,M; 5G,H; 19A)

TYPE MATERIAL

HOLOTYPE: ♂, Binna Burra, Lamington Nat. Pk, southeastern Queensland, 28°12'S, 153°11'E, 27-30.iii.1976, RJR, VED, QMS15074.

PARATYPES: Southeastern Queensland: Lamington National Park: ♀, Binna Burra, 27-30.iii.1976, RJR, VED, QMS15077; 2♂, same data, QMS15062; 3♀, QMS21002; 2♀, QMS15061; 2♂, Nagaragoon, 8.iv.1976, RJR, VED, M. Bishop, QMS15064; 3♀, same data, QMS15065; 3♀, QMS15063; 2♂, QMS15043; ♂, O'Reilly's, 28°14'S, 153°08'E, 1.xi.1989, RJR, QMS16519; ♀, Mt Hobwee, 8.iv.1976, RJR, VED, QMS15085; ♂, Binna Burra, 18.v.1983, D. Court, QMS15082. Mt Tamborine: ♀, viii.1974, VED, QMS15059; ♂, 10.vii.1974, VED, QMS15087. ♂, Rathdowney, 28°13'S, 152°52'E, xii.1975, C. Corben, QMS15044. ♀, The Head, Killar-

ney, 21°18'S, 151°26'E, iii-iv.1975. GBM, SRM, QMS15057. Northern New South Wales: ♂, Stotts I., Tweed R., 28°16'S, 153°30'E, 17-19.xi.1978, JC, GVC, RJR, QMS15081; ♂ ♀, Richmond Ra. State Forest, 28°27'S, 152°20'E, 17-18.iv.1976, RJR, QMS15067; ♂, Whian Whian State Forest, 28°38'S, 153°19'E, 9-12.ix.1976, RJR, QMS15046; ♀, Cherry Tree, Malanganee, 28°54'S, 152°43'E, GBM, QMS15058; ♀, Victoria Park via Alstonville, 28°50'S, 153°26'E, 26.viii.1974-23.iii.1975, GBM, SRM, QMS15105; ♀, Brindle Ck, Wiangarie State Forest, 28°38'S, 152°58'E, 27.xii.1974-23.iii.1975, GBM, SRM, QMS15108.

OTHER MATERIAL

Northern New South Wales: ♂, Bruxner Pk, Orara East State Forest, Coffs Harbour, SAMAN1990334; ♀, Brunswick Heads, SAMAN1990335.

ETYMOLOGY

From the type locality, Binna Burra, Lamington National Park.

DIAGNOSIS

Large. Trapezoid area of venter pale. Three dorsal spines on ♂ tibiae III.

DESCRIPTION

Male (holotype): CL 9.2, CW 8.4, AL 10.0, AW 6.2. Spination: femora I, II 323, III 333, IV 331; patellae I-III 101, IV 001; tibiae I-III 2326, IV 22(1)26. ♂ palp: tibial apophysis short, thick with bulge on anterior edge, blunt tip (Fig. 5G,H).

Female: CL 10.0, CW 9.5, AL 14.4, AW 9.0. Spination: femora I, II 323, III 332, IV 331; patellae I-III 101, IV 000; tibiae I-III 2126, IV 20(1)26. Epigynum: insemination duct with about half a coil (Fig. 4L,M).

AN UNASSIGNED SPECIES

Heteropoda gordonensis sp.nov. (Figs 4N-P; 5I; 19A)

TYPE MATERIAL

HOLOTYPE: ♂, Gordon Ck, Iron Range, northeastern Queensland, 12°44'S, 143°17'E, 24-30.vi.1976, VED, RJR, PF, QMS15191.

PARATYPES: ♀, same data as holotype, QMS15192; 8♂, 7♀, QMS14815; ♂, ♀, Leo Ck nr Coen, 13°33'S, 143°28'E, 1-17.viii.1978, GVC, SVD, QMS14812; 5♂, 5♀, Leo Ck nr Coen, 26.vii.1976, PF, QMS14814; 2♂, Rocky Scrub, Leo Ck Rd, 17.iii.1979, KRM, QMS14813.

ETYMOLOGY

From the type locality, Gordon Creek, Iron Range.

DIAGNOSIS

Small-medium size. Trapezoid area pale brown with 2 pale paramedial stripes. Tegulum longer than wide, without process; flange arising mid-prolaterally; embolus tapering with short blunt sub-distal branch (Fig. 4P); conductor broad with short stalk. Tibial apophysis flat, scythe-like. Very short, wide insemination ducts. Clypeus a little longer than AME.

DESCRIPTION

Male (holotype): CL 6.3, CW 5.8, AL 5.8, AW 3.5. Legs 2143. Spination: femora I-III 323, IEV 321; patellae I-IV 101; tibiae I, II 2326, III 2226, IEV 21(2)26. ♂ palp (Fig. 5I).

Female: CL 6.8, CW 6.1, AL 7.7, AW 5.1. Spination: femora I-III 323, IV 321; patellae I-IV 001; tibiae I-IV 2026. Epigynum: median septum with deep transverse bar, much shorter than lateral lobes (Fig. 4N,O).

THE BELLENDENKER GROUP

Small spiders. Venter mottled, legs 2413. MOQ slightly longer than wide. Clypeus a little longer than AME. Broad regular flange giving ear-shaped appearance; without tegular process. Embolus arising postero-retrolaterally, long, filiform, thickening slightly distally to knob-like tip. Anvil-shaped tibial apophysis. Epigynum with short median septum broadening to transverse bar; insemination ducts with 1-1½ coils

Heteropoda bellendenker sp.nov., *H. mossman* sp.nov.

Heteropoda bellendenker sp.nov. (Figs 2I; 4Q,R; 7A,B,J; 19A)

TYPE MATERIAL

HOLOTYPE: ♂, Mt Bellenden Ker, northeastern Queensland, 17°16'S, 145°51'E, 500m, 1-7.xi.1981, EWQM, QMS15193.

PARATYPES: Mt Bellenden Ker: ♀, 1054m, 25-31.x.1981, VED, EWQM, QMS14707; ♂, 500m, 17-24.x.1981, EWQM, QMS14727; 3 ♂, 1054m, 17-24.x.1981, EWQM, QMS14718; ♀, ♂, 25-31.x.1981, VED, EWQM, QMS14708; Other localities: ♀, Emerald Ck, Lamb Ra., 17°03'S, 145°32'E, 11.x.1982, GBM, DY, GT, QMS14711; 3 ♀, Mt Edith, 17°06'S, 145°37'E, 11.x.1982, GBM,

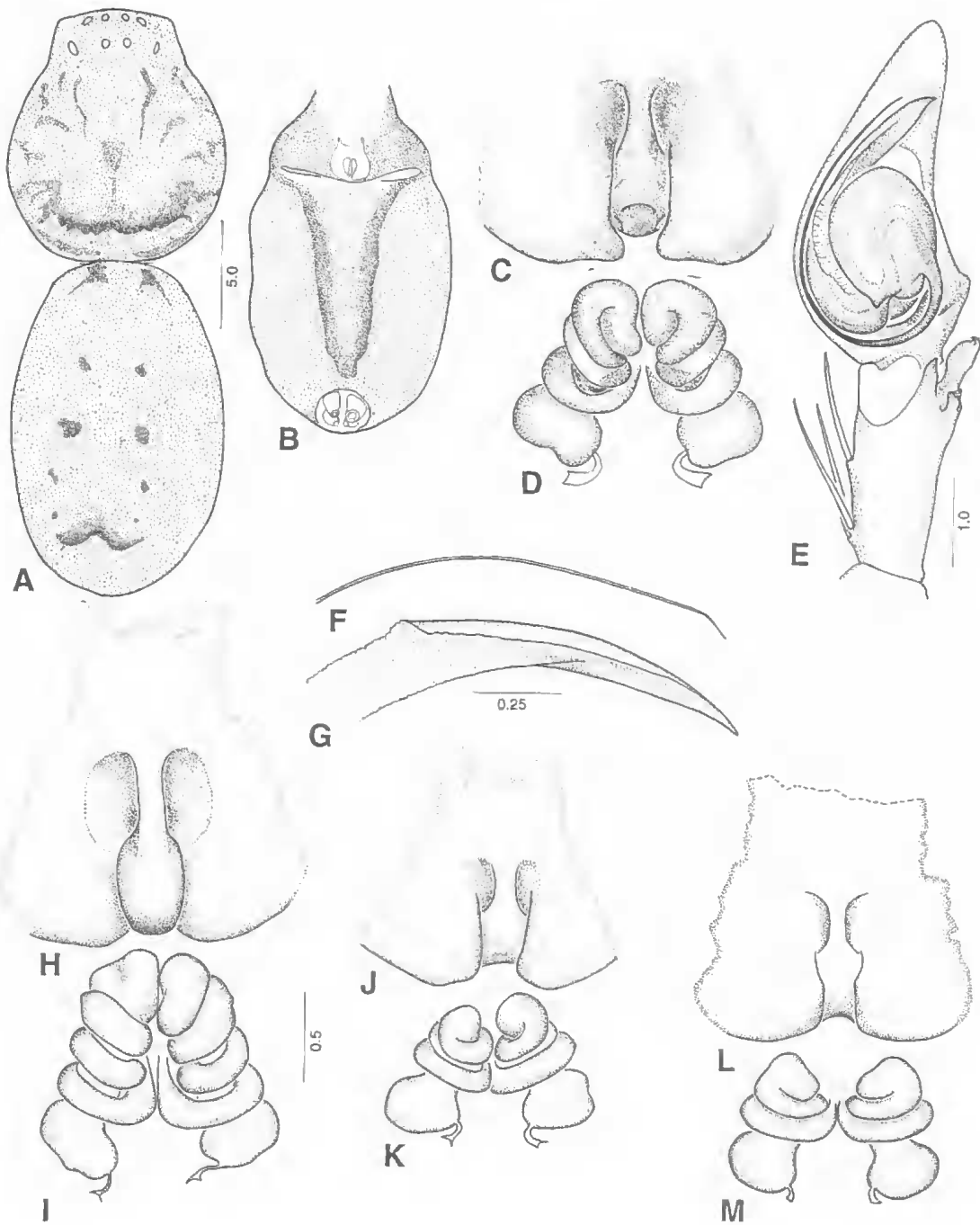


FIG. 6. A-G, *Heteropoda jugulans*; H,I, *H. alta*; J,K, *H. hillerae*; L,M, *H. cooki*. A, dorsal view; B, ventral abdomen; C,D, H-M, external and internal epigyna; E, ♂ palp; F,G, embolus and conductor.

DY, GT, QMS14704; ♀, Mt Edith, 1050m, 12.x.1982, GBM, DY, GT, QMS14716; 3 ♀, Malaan State Forest, 17°36'S, 145°36'E, 20-24.iv.1978, VED, RJR, QMS14712; 6 ♂, 2 ♀, Major's Mountain, 17°38'S, 145°32'E, 14-20.iv.1978, VED, RJR, QMS14079; ♂, 2 ♀, Mt Fisher, 17°33'S, 145°33'E, 27-29.iv.1982, GBM, DY, DC, QMS14713; ♂, Boulder Ck, via Tully, 17°52'S, 145°55'E, 500-600m, 24-27.x.1983, GBM, DY, GT, QMS14710. All in northeastern Queensland.

ETYMOLOGY

From the type locality, Mt Bellenden Ker.

DIAGNOSIS

Small. Tibial apophysis with upturned tip; sperm duct with single loop (as seen on tegulum, Fig. 2I). ♀ insemination ducts with one coil.

DESCRIPTION

Male (holotype): CL 4.9, CW 4.4, AL 5.2, AW 3.1. Dorsal abdomen with red-brown mottling with dark shoulder patches and W posteriorly. Spination: femora I-III 323, IV 321; patellae I-IV 101; tibiae I, II 2326, III, IV 2226. ♂ palp (Fig. 7A,B): embolus with knob-like tip (Fig. 7J); broad tegular flange giving ear-like appearance, tibial apophysis slender, curving anvil-shaped with thin, flat upturned tip.

Female: CL 5.4, CW 4.8, AL 5.4, AW 3.1. Colour: generally darker and less distinctly patterned than male. Spination: femora I-III 323, IV 321; patellae I-IV 001; tibiae I-IV 2026. Epigynum (Fig. 4Q,R): short, median septum, indented posteriorly; insemination duct with one coil.

REMARKS

H. bellendenker is found in higher altitude rain-forests of northeastern Queensland. As well as the listed localities it has been collected from the Cardwell (17°48'S, 145°38'E) and Kirrama Ranges (18°06'S, 145°51'E) and from Mt Graham (18°24'S, 145°52'E).

Heteropoda mossman sp.nov.
(Figs 2H; 4S,T; 7C,D; 19A)

TYPE MATERIAL

HOLOTYPE: ♂, Bluff Track, 5-10 km W of Mossman, north Queensland, 16°28'S, 145°23'E, 760m, 20.xii.1989-15.i.1990, GBM, GT, AE, QMS21004.

PARATYPES: ♀, ♂ same data QMS21005; 3 ♂, 1000m, QMS21006; ♂, 480m, QMS21009; 2 ♂, 360m, QMS21010; ♀, 250m, QMS21011. ♂, Creek Camp, near McLeod, Windsor Tableland, 16°15'S, 145°05'E,

26-27.xii.1980, AE, QMS14717; ♀, North Bell Peak, 17°05'S, 145°53'E, 15-16.ix.1981, GBM, DC, QMS14719; ♂, Windsor Tableland, NNW of Mt Carbine, 25-26.iv.1982, GBM, DY, DC, QMS14705; ♂, 2 ♀, Mt Hartley, c. 490m, 6.xi.1974, JC, DJ, VED, QMS14706; ♀, Home Rule nr Helenvale, 15°42'S, 145°13'E, 5.xi.1974, DJ, VED, QMS14715; ♂, Mt Finnigan, 15°49'S, 145°17'S, 980-1130m, 9.xi.1974, LR, JC, KRM, VED, QMS14714; Mt Finnigan, 14.xii.90-17.i.1991, QM/AE: ♀, 940m, QMS21013; ♀, 1060m, QMS21014; ♂, Thornton Pk, 16°05'S, 145°23'E, xi.1975, MG, AMKS8267. All in northeastern Queensland.

ETYMOLOGY

From the type locality, Mossman.

DIAGNOSIS

Small. Tibial apophysis with flat obtuse tip slightly down-turned; a second small loop in sperm duct before entering embolus (Fig. 2H). ♀ insemination ducts with 1½ coils.

DESCRIPTION

Male (holotype): CL 4.0, CW 3.6, AL 4.2, AW 2.4. Colour: similar to *H. bellendenker*. Spination: femora I-III 323, IV 321; patellae I 101, II-IV 001; tibiae I-IV 2326, ♂ palp (Fig. 7C,D); tegulum similar to *H. bellendenker*; tibial apophysis slender, flat with slightly down-turned blunt tip.

Female: CL 4.9, CW 4.4, AL 6.3, AW 4.4. Dorsal abdomen darker than male, closely mottled. Venter mottled with dark V posteriorly. Spination: femora I-III 323, IV 321; patellae I-IV 001; tibiae I-III 2026, IV 2126. Epigynum (Fig. 4S,T): similar to *H. bellendenker* but 1½ coils in insemination ducts.

THE JUGULANS GROUP

Small-large. Venter pattern variable. MOQ longer than wide. ♂ tegulum longer than wide; tegular flange as long as tegulum. Tegular process pointed, rounded or reduced. Tibial apophysis without 'tooth'. ♀ median septum of epigynum tongue-like shorter than lateral lobes. Insemination ducts with ½-3 coils.

Heteropoda jugulans (L. Koch) and the following new species, *H. alta*, *H. hillerae*, *H. cooki*, *H. nagarigoon*, *H. holovertris*, *H. vespersa*, *H. war-rumbungle*, *H. distincta*, *H. eungella* and *H. conwayensis*.

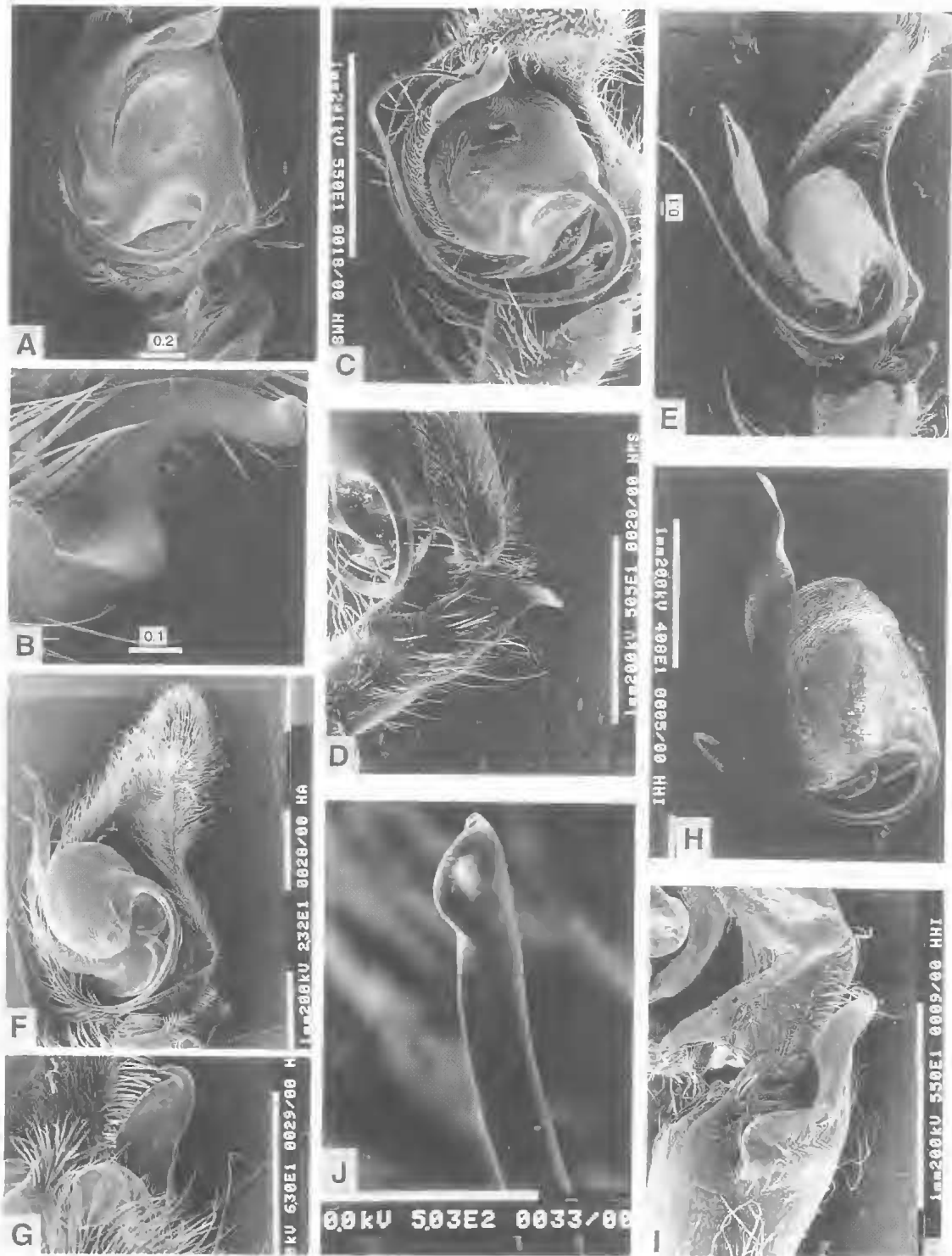


FIG. 7. A,B, J, *Heteropoda bellendenker*; C,D, *H. mossman*; E, *H. jugulans*; F,G, *H. alia*; H,I, *H. hillerae*. A-I, ♂ palps and tibial apophyses; J, tip of embolus.

***Heteropoda jugulans* (L. Koch, 1876)**
(Figs 1; 2C,K; 3A-I; 6A-G; 7E; 18)

Sarotes jugulans L. Koch, 1876: 852.

Heteropoda jugulans: Simon, 1880: 269; Hogg, 1902: 416; Rainbow, 1911: 240.

TYPE MATERIAL

HOLOTYPE: ♂, Peak Downs, mid-eastern Queensland 22°56'S, 148°05'E, ZMH (Godeffroy No. 14635).

PARATYPE: ♂, Peak Downs, BMNH15.3.5.6462, Godeffroy collection.

OTHER MATERIAL

Southeastern Queensland: Brisbane, ♀, Mt Gravatt, QMS14844; ♀, Banyo, QMS14849; 2 ♂, Fig Tree Pocket, QMS14877; ♂, QMS14846; 3 ♂, Alderley, QMS14876; 2 ♂, The Gap, QMS14847; ♀, Mt Coottha, QMS14893. Mideastern Queensland: 2 ♂, Brandy Ck, QMS14848; ♀, Mt Dryander, AMKS7356. Northeastern Queensland: ♂, Shiptons Flat, QMS21018; 3 ♂, 11 ♀, QMS21019; ♀, ♂, Cape Tribulation, QMS14046; ♀, Townsville, SAMAN1990341; ♀, Hinchinbrook I., AMKS19551.

DIAGNOSIS

Large. Venter pale brown with darker V pattern, sometimes indistinct in males. Tegulum with posteriorly directed acute process; tibial apophysis broad with slightly hooked tip posteriorly. Epigynum with tongue-like median septum shorter than lateral lobes; insemination duct with 2 coils.

DESCRIPTION

Male (holotype): CL 9.3, CW 8.4, AL 9.5, AW 5.5. Venter pale with narrow faint brown V. Spination: femora I-III 323, IV 321; patellae I-IV 101; tibiae I, IV 2226, II, III 2326. ♂ palp (Figs 6E-G, 7E). The paratype is a little smaller with similar spination. In ♂♂ from Brisbane and other localities dorsal spination of tibiae IV varies from 2-3.

Female (Brisbane, Fig. 6A,B): CL 11.7, CW 10.4, AL 15.0, AW 9.6. Venter light brown with darker V pattern. Spination: femora I-III 323, IV 321; patellae I-IV 101, tibiae I, II 2026, III 2126, IV 2226. Epigynum (Fig. 6C,D): insemination duct with 2 coils.

REMARKS

H. jugulans has been collected from coastal forests and wet sclerophyll forests from Brisbane to Shiptons Flat, north Queensland (Fig. 18). No fresh material has been collected from the type

locality. Peak Downs, which is much changed through mining and grazing.

***Heteropoda alta* sp. nov.**
(Figs 6H,I; 7F,G; 19B)

TYPE MATERIAL

HOLOTYPE: ♂, Mt Molloy, north Queensland, 16°41'S, 145°20'E, 1974, P. & F. Little, QMS21021.

PARATYPES: ♀, Bakers Blue Mt., 800-1000m, 17km W of Mt Molloy, 30.xii.1989-9.i.90, AE, QMS21022; ♀, same data, QMS21023; ♂, juvs, Mt Molloy, 1974, P. & F. Little, QMS21024; ♀, Boonjee, 17°24'S, 145°44'E, 700m, 8.xii.1988, GBM, GT, QMS15267; ♀, Douglas Ck. Lamb Ra., 17°06'S, 145°30'E, 700m, 12.x.1982, GBM, DY, GT, QMS14914; ♀, Broadwater Pk, 35km NW Ingham, 18°39'S, 146°10'E, 60m, 16.xii.1986, GBM, GT, S. Hamlet, QMS15268; ♀, 3km S Mt Spurgeon, 16°26'S, 145°12'E, 1100m, 20-21.xii.1988, GBM, GT, QMS15257; ♀, Devils Thumb Track, 16°27'S, 145°16'E, 100-600m, 26.xii.1989, AE, QMS21025; ♀, Tully, 17°57'S, 145°55'E, 17.v.1968, J. Cann, AMKS19526; ♂, ♀, Herberton, 17°23'S, 145°23'E, 1951, J.G. Brooks, AMKS19527; ♀, Babinda, 17°21'S, 145°56'E, J.G. Brooks, 1951, AMKS19536; ♀, Mt Surprise, Undara, Michaels Cave, 18°09'S, 144°19'E, 16.1.1989, F.G. Howarth, AMKS22430; ♀, Kuranda, 16°49'S, 145°38'E, 15.iii.1950, A.N. Burns, VMK-3004; 2 ♀, Longland Gap, Atherton-Herberton Rd, ix.1950, J.G. Brooks, VMK-3005-3006. All in northeastern Queensland.

ETYMOLOGY

From the Latin *altus* meaning high, referring to the high altitude.

DIAGNOSIS

Trapezoid area of venter with marked, dark V pattern. Medium septum of epigynum slightly shorter than lateral lobes; insemination ducts with 3 coils.

DESCRIPTION

Male (holotype): CL 10.2, CW 9.0, AL 9.9, AW 5.0. Dorsal abdomen pale brown with usual pattern. Spination: similar to *H. jugulans*. ♂ palp (Fig. 7F,G) very like *H. jugulans*.

Female: CL 10.4, CW 8.7, AL 13.8, AW 10.0. Trapezoid area of venter outlined in darker V band leaving pale central region. Spination: Similar to *H. jugulans*. Epigynum (Fig. 6H,I): insemination ducts longer than *H. jugulans* with 3 coils. Variation: mottling was sometimes present between the dark V on venter.

***Heteropoda hillerae* sp. nov.**
(Figs 6J,K; 7H,I; 19B)

TYPE MATERIAL

HOLOTYPE: ♂, Mt Glorious, southeastern Queensland, 27°20'S, 152°43'E, 29.x.89, K. Hiller, QMS21026.

PARATYPES: ♀, Mt Glorious, 4.v.89, K. Hiller, QMS6905; ♀, Mt Nebo, 27°23'S, 152°47'E, 14.iii.1978, A. Hiller, QMS15035; ♀, Mt Nebo, 15.viii.1990, M.S. Harvey, T. Churchill, WAM93/1757; ♀, Mt Nebo, 10.ix.1973, C. Wallace, QMS15037; ♀, Mt Tenison Woods, 762m, 12.xi.1975-27.i.1976 GBM, SRM, QMS15030; ♀, Neurum Ck, Mt Mee, 27°02'S, 152°42'E, 20.i-26.ii.1978, GBM, QMS15024; ♀, Glenview, 26°46'S, 153°03'E, 15.iv-27.ix.1978 GBM, SRM, QMS15028; ♀, Upper Neurum Ck, 31.x.78-13.ii.1979, GBM, SRM, QMS15025; ♀, Neurum Ck, Mt Mee, 26.vi-30.x.1978, GBM, QMS15040. All in southeastern Queensland.

ETYMOLOGY

For Katie Hiller, the collector of the holotype.

DIAGNOSIS

Medium size. Dorsal abdomen hirsute, well marked pattern; mottled venter with darker irregular V pattern posteriorly. Bluntly pointed regular process. ♀ insemination ducts with one coil.

DESCRIPTION

Male (holotype): CL 7.7, CW 6.7, AL 7.5, AW 4.2. Spination: femora I-III 323, IV 321; patellae I-IV 101; tibiae I-III 2326, IV 2226. ♂ palp (Fig. 7H,I): regular process pointing posteriorly; tibial apophysis tapering to curved tip.

Female: CL 7.9, CW 7.3, AL 8.0, AW 5.3. Trapezoid area of venter mottled, darker V pattern. Spination: femora I-III 323, IV 321; patellae I, III, IV 001, II 101; tibiae I 2026, II-IV 20(1)26. Epigynum (Fig. 6J,K).

***Heteropoda cooki* sp. nov.**
(Figs 6L,M; 9A; 19B)

TYPE MATERIAL

HOLOTYPE: ♂, Mt Bellenden Ker, northeastern Queensland, 17°12'S, 145°51'E, 1560m, 10.vi.1980, GBM, QMS15164.

PARATYPES: ♀, Mt Bellenden Ker, 1560m, 17-24.x.1981, EWQM, QMS15163; ♂, TV station, Mt Bellenden Ker, 1560m, 25-31.x.1981, EWQM, QMS15162; ♀, South Peak summit, Mt Bartle-Frere, 17°24'S, 145°49'E, 1620m, 6-8.xi.1981, EWQM,

QMS15165; ♂, Massey Ra; 1250m, 17°16'S, 145°49'E, 9-11.x.1991, GBM, DC, HJ, QMS21027; ♂, Mt Fisher, 17°33'S, 145°33'E, 1000-1200m, 5.v.1983, GBM, DY, QMS15167; 3 ♀, Mt Fisher, 1050-1100m, 27-29.iv.1982, GMB, DY, DC, QMS15166; ♂, 3 ♀, Mt Spurgeon, 16°26'S, 145°13'E, 1250-1300m, 15-20.xi.1991, GBM, DC, HJ, LR, QMS21028; ♀, Mt Spurgeon, 16°22'S, 145°13'E, 1200-1250m, 17-19.x.1991, GBM, DC, HJ, LR, QMS21029. All in northeastern Queensland.

ETYMOLOGY

For Douglas Cook, a collector of many spiders from high altitudes.

DIAGNOSIS

Large. Venter pale with mottled pattern. Tegulum longer than wide with blunt process directed ventro-prolaterally. Epigynum with short median septum; insemination ducts with 1½ coils.

DESCRIPTION

Male (holotype): CL 8.9, CW 7.7, AL 9.2, AW 5.5. Spination: femora I-III 323, IV 321; patellae I-IV 101; tibiae I-IV 2326. ♂ palp (Fig. 9A): tibial apophysis broad, tapering to curved tip.

Female: CL 11.4, CW 10.2, AL 14.6, AW 10.0. Spination: femora I-III 323, IV 321; patellae I-III 101, IV 100; tibiae I-IV 2226. Epigynum (Fig. 6L,M): short, spade-like median septum; insemination ducts with 1½ coils.

REMARKS

H. cooki has been found only at altitudes of 1000m or more in northeastern Queensland.

***Heteropoda nagarigoon* sp. nov.**
(Figs 8A-C; 9B; 19C)

TYPE MATERIAL

HOLOTYPE: ♂, Nagarigoon, Lamington National Park, southeastern Queensland, 28°19'S, 153°05'E, 1.iv.1976, NH, VED, QMS15200.

PARATYPES: Lamington National Park: Nagarigoon (same data), ♀, QMS15201; 2 ♂, 6 ♀, QMS14833; 2 ♂, 6 ♀, S14831; ♂, 8.iv.1976, NH, VED, QMS14828; ♀, Ballunju Falls track, 4.iv.1976, M. Bishop, NH, QMS14830; 2 ♂, 4 ♀, Binna Burra, 27-30.iii.1976, VED, RJR, QMS14829; ♂, 13.vi.1971, M. Archer, E. Jeffreys, WAM88/1956. Other localities: 3 ♂, Mt Tamborine, 27°55'S, 153°10'E, southeastern Queensland, 10.vii.1974, VED, C.L. Wilton, RJR, QMS14832. New South Wales: ♂, near Mt Warning, 28°24'S, 153°16'E, 3.xii.1974, RJR, QMS15039; ♀,

Whian Whian State Forest, 28°38'S, 153°19'E, 9-12.ix.1976, RJR, QMS15026.

ETYMOLOGY

From the type locality Nagarigoon, Lamington National Park.

DIAGNOSIS

Medium size. Venter mottled with ill-defined trapezoid area (Fig. 8C). Tegulum produced into low rounded postero-prolateral bulge. Elongate tibial apophysis, tapering, curved at tip. Median septum of epigynum with narrow neck, broadening posteriorly; insemination duct with one coil.

DESCRIPTION

Male (holotype): CL 7.8, CW 6.7, AL 7.5, AW 4.0. Venter yellow-brown with irregular brown mottling. Spination: femora I, II 323, III 322, IV 321; patellae I-IV 101; tibiae I-IV 2226. ♂ palp (Fig. 9B). Variation: in other males dorsal spines varied on tibiae III, IV, 2(3).

Female: CL 8.5, CW 7.8, AL 9.8, AW 5.8. Spination: femora I, II 323; III 322; IV 321; patellae I-IV 001; tibiae I-III 2026, IV 2226. Epigynum (Fig. 8A,B). Variation: dorsal spination of tibiae III varied 0(1) and IV 2(1).

REMARKS

Although males of *H. nagarigoon* have no marked prolateral tegular process, the low rounded projection in this area suggests it belongs in the *jugulans* group of species. The long narrow prolateral flange on the proximal tegulum supports this view.

Heteropoda holovertris sp.nov. (Figs 8D,E; 9C,D; 19C)

TYPE MATERIAL

HOLOTYPE: ♂, Mt Bellenden Ker, northeastern Queensland 17°16'S, 145°51'E, 500m, 17-24.x.1981, EWQM, QMS15181.

PARATYPES: Mt Bellenden Ker ♀, same data, QMS15182; 3 ♀, 1-7.xi.1981, QMS14825; 2 ♀, 17-24.x.1981, EWQM, QMS15237; ♂, Twelve Mile Scrub, via Helenvale, 22-27.xi.1975, VED, RM, QMS14816; ♂, near Palmerston National Park, 22.i.1975, RJR, QMS14823; 2 ♀, Mt Finlay, 15°49'S, 145°21'E, 29.xi.-4.xii.1975, VED, RM, QMS14818; ♀, Malaan State Forest, 17°36'S, 145°36'E, 20-24.iv.1978, VED, RJR, QMS14817; 3 ♀, Home Rule, nr Helenvale, 15°42'S, 145°13'E, 5.xii.1974, JC, DJ, VED, QMS14819; ♀, Boulder Ck, via Tully, 17°52'S, 145°55'E, 500-600m, 24-27.x.1983, GBM, DY, GT,

QMS14822; ♀, Yungaburra, 17°16'S, 145°35'E, 700m, 8.xii.1988, GBM, GT, QMS15265; ♀, Fritz Ck, 15°51'S, 145°22'E, xii.1975, MG, AMKS8172. All in northeastern Queensland.

ETYMOLOGY

From a combination of the Greek *holo-* meaning whole and the Latin *verter* meaning belly, referring to the pale uniform trapezoid area of the venter.

DIAGNOSIS

Large. Venter brown with distinct pale, cream-coloured trapezoid area. Small prolateral tegular process; short tibial apophysis, bifurcate tip, longer curved posterior fork. Median septum shorter than lateral lobes; insemination ducts with ½ coil.

DESCRIPTION

Male (holotype): CL 10.9, CW 9.5, AL 10.5, AW 5.4. Spination: femora I-III 323, IV 321(2); patellae I-IV 101; tibiae I-III 2326, IV 2336. ♂ palp (Fig. 9C,D)

Female: CL 10.3, CW 8.8, AL 11.3, AW 7.1. Spination: femora and patellae as in ♂; tibiae I, II 2026, III 20(1)26, IV 22(1)26. Epigynum (Fig. 8D,E).

Heteropoda vespersa sp.nov. (Figs 8F,G; 9E,F; 19B)

TYPE MATERIAL

HOLOTYPE: ♂, 4.5-5km W of Cape Tribulation, northeastern Queensland, 16°05'S, 145°29'E, 780m, 27.ix.-7.x.1982, GBM, DY, GT, QMS15198.

PARATYPES: ♀, Thornton Peak, 16°10'S, 145°23'E, xi.1975, MG, AMKS8260; ♂, Cape Tribulation, 780m, 27.ix.-7.x.1982, GBM, DY, GT, QMS15169; ♂, same data, QMS15168. All in northeastern Queensland.

ETYMOLOGY

From the Latin *vesper* meaning evening, referring to when the spider is active.

DIAGNOSIS

Medium size. Trapezoid area of venter pale. Tegulum with rounded prolateral bulge; tibial apophysis tapering to curved tip. Median septum shorter than lateral lobes; insemination duct with 1½ coils.

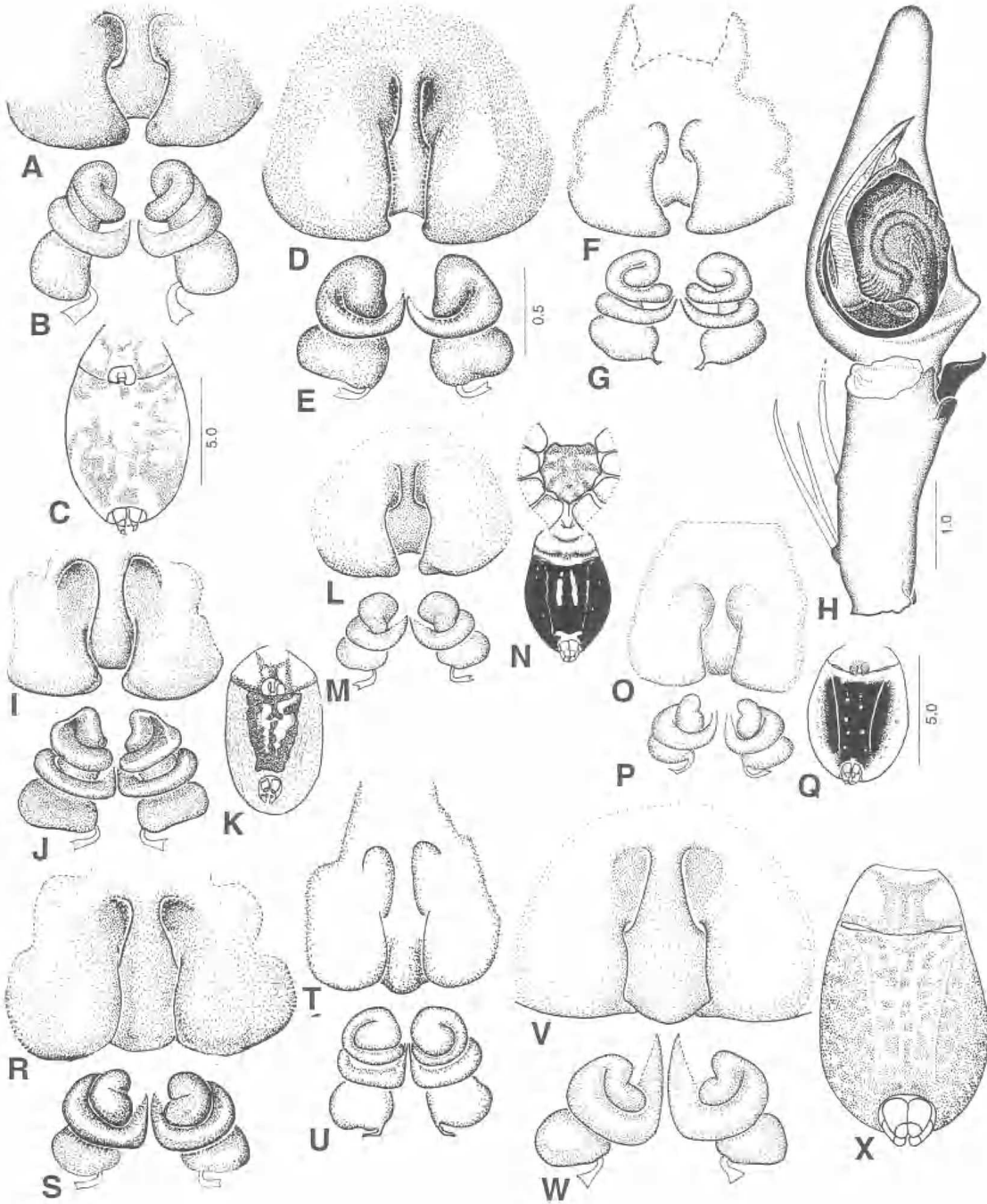


FIG. 8. A-C, *Heteropoda nagarigoon*; D,E, *H. holovenstris*; F,G, *H. vespersa*; H, *H. warrumbungle*; I-K, *H. distincta*; L-N, *H. eungella*, O-Q, *H. conwayensis*; R,S, *H. goonaneman*; T,U, *H. spurgeon*; V-X, *H. bulburin*. A,B,D-G,I,J,L,M,O,P,R-W, epigyna; C,K,N,Q,X, ventral abdomen; H, ♂ palp.

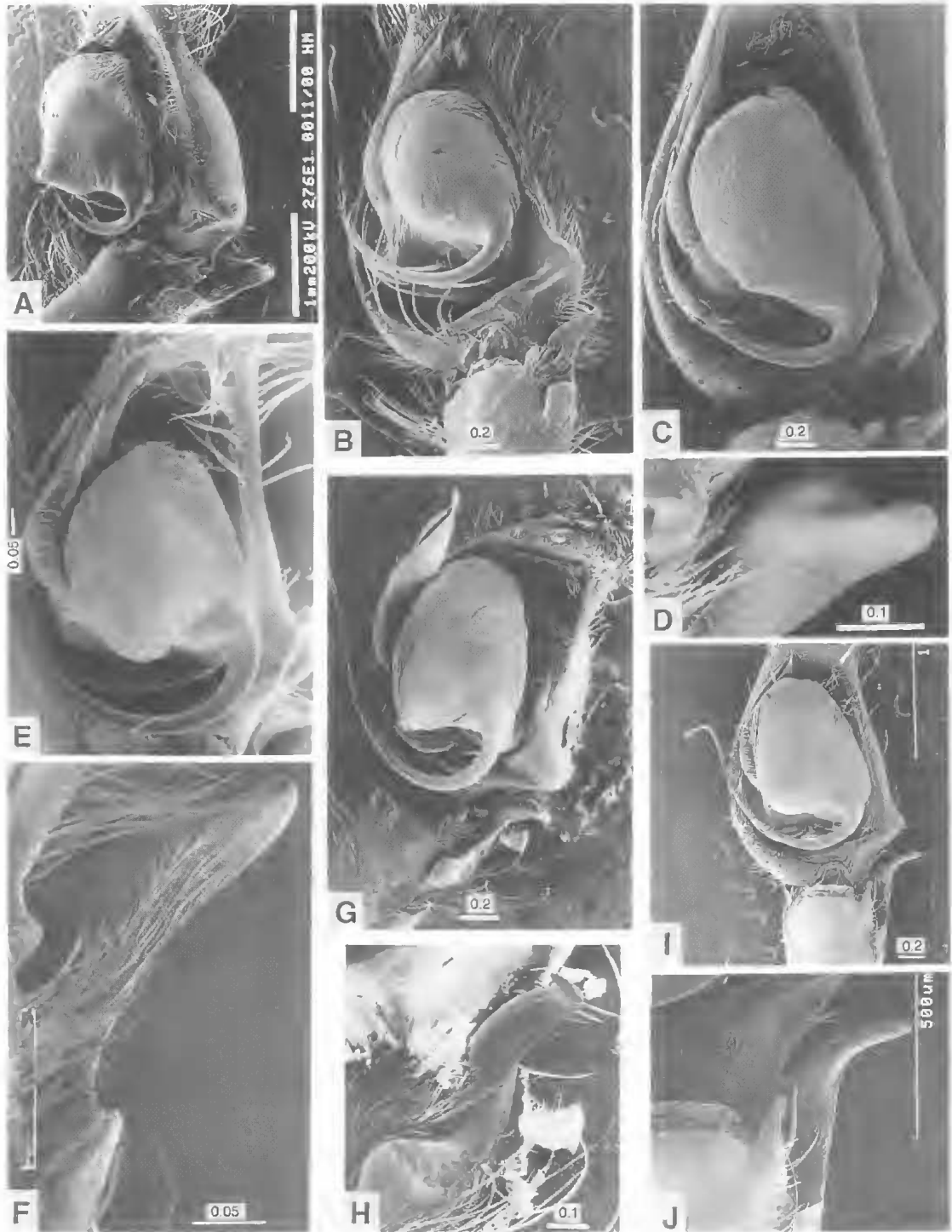


FIG. 9. A, *Heteropoda cooki*; B, *H. nagarigoon*; C-D, *H. holovenstris*; E, F, *H. vespersa*; G, H, *H. distincta*; I, J, *H. eungella*. A-J, ♂ palps and tibial apophyses.

DESCRIPTION

Male (holotype): CL 6.4, CW 5.9, AL 6.6, AW 4.0. Colour: Trapezoid area pallid but not so clearly defined as *H. holoventris*. Spination: femora I, II 323, III 33(2)3, IV 331; patellae I-IV 101; tibiae I, II 2326; III, IV 2226. ♂ palp (Fig. 9E,F).

Female: CL 9.5, CW 8.6, AL 9.5, AW 5.3. Spination: femora I-III 323, IV 33(4)1; patellae I-IV 101; tibiae I 2026, II 20(1)6, III 22(1)26, IV 2326. Epigynum (Fig. 8F,G).

***Heteropoda warrumbungle* sp.nov.**
(Figs 8H; 18)

TYPE MATERIAL

HOLOTYPE: ♂, Wallumburrawang Ck, Warrumbungle Ranges, New South Wales, 31°34'S, 148°56'E, 29.iv.1988, D. Hirst, SAMAN1990327.

ETYMOLOGY

From the Warrumbungle Ranges.

DIAGNOSIS

Large spider with barred legs, tegular process rounded projection, tibial apophysis tapering to point.

DESCRIPTION

Male (holotype): CL 9.8, CW 8.5, AL 10.6, AW 5.6. Colour: trapezoid area of venter pale with slight mottling. Black spots on legs giving stripey appearance. Spination: femora I-III 3 2 3, IV 3 2 1; patellae I-IV, 1 0 1; tibiae I-IV 2 3 2 6. ♂ palp (Fig. 8H).

The female is unknown.

***Heteropoda distincta* sp.nov.**
(Figs 8I-K; 9G,H; 19B)

TYPE MATERIAL

HOLOTYPE: ♂, Nagarigoon, Lamington National Park, south-eastern Queensland, 28°19'S, 153°05'E, 1.iv.1976, NH, VED, QMS15203.

PARATYPES: Lamington National Park. ♀, Nagarigoon, same data as holotype, QMS15204; 4 ♀, 1.iv.1976, NH, VED, QMS14777; 2 ♂, 1-8.iv.1976, M. Bishop, NH, VED QMS14782; 6 ♀, 1-8.iv.1976, VED, QMS14779; 2 ♂, 2 ♀, Ballanjui Falls track, 4.iv.1976, M. Bishop, NH, QMS14773; ♂, Binna Burra, 27-30.iii.1976, VED, RJR, QMS14781; ♂, Springbrook, 5.xii.1971, B. Baldwin, QMS14780; ♂, Mt Cainbale, 28°05'S, 153°05'E, 28.ix.1975-31.i.1976, GBM, SRM, QMS14801; 2 ♀, 13.vi.1971, M. Archer, E. Jeffreys, WAM88/1956.7. Southeastern

Queensland: ♀ Beechmont, 28°08'S, 153°12'E, 26.x.-14.xii.1974, GBM, SRM, QMS14795; ♀, 22.iii.-25.v.1975, GBM, SRM, QMS14783. Mt Tamborine, 27°55'S, 153°10'E: ♀, 26.x.-14.xii.1974, GBM, SRM, QMS14792; ♀, 14.xii.1974-22.iii.1975, GBM, SRM, QMS14794; ♂ ♀, 27.vi.1980, N. Clyde Coleman, VED, RJR, QMS14775. 3 ♀, Numinbah Valley, 28°08'S, 153°14'E, 26.xii.1978-vi.1979, GBM, SRM, QMS14788; ♀, Sarabah National Park, 28°10'S, 153°07'E, 27.xi.1976-23.i.1977, 120m, GBM, SRM, QMS14786; ♀ same data, QMS14787; ♀, ♂, Canungra Ck, 27°58'S, 153°09'E, 120m, 13.viii.-2.xii.1977, GBM, SRM, QMS14797; ♀, ♂, Burleigh Headland, 28°05'S, 153°27'E, 14.xii.1974-22.iii.1975, GBM, SRM, QMS14799. New South Wales: ♂, 2 ♀, Rotary Park, Lismore, 28°49'S, 153°16'E, 16.xi.-26.xii.1974, GBM, SRM, QMS14796; Stotts I., Tweed R., 28°16'S, 153°30'E: 3 ♀, 17-19.xi.1978, GVC, JC, RJR, SVD, QMS14776; ♂, same data, QMS15032; 2 ♀, QMS15034. 4 ♂, ♀, Whian Whian State Forest, 28°38'S, 153°19'E, 9-12.ix.1976, RJR, QMS14772; ♀, Richmond Gap via Grevillea, 28°27'S, 152°50'E, 1978-9, GBM, SRM, QMS15023.

DIAGNOSIS

Medium size. Venter with dark trapezoid area with two thick irregular longitudinal pale lines (Fig. 8K). Tegulum with bluntly pointed ventro-prolateral process; tibial apophysis long, tapering with curved tip. Median septum shorter than lateral lobes; insemination duct with 1½ coils.

DESCRIPTION

Male (holotype): CL 6.3, CW 5.6, AL 6.0, AW 4.1. Clear epigastric pattern of 2 pale, irregular longitudinal bands on red-brown base. Spination: femora I-III 323, IV 321; patellae I-IV 101; tibiae I, II, IV 2326, III 2426. ♂ palp (Fig. 9G,H); tegular process, sub-acute, ventrally directed with secondary 'peak'. Variation: ♂ ♂ paratypes with 3 dorsal spines on tibiae III.

Female: CL 7.5, CW 6.7, AL 7.2, AW 4.9. Spination: femora I-III 323, IV 321; patellae I-IV 101; tibiae I, II 2026, III 21(0)26, IV 2226. Epigynum (Fig. 8I-J).

REMARKS

H. distincta differs from sympatric *H. nagarigoon* in the pattern on epigastrium, its distinct venter pattern (though this is not always clear in newly moulted specimens) and the sub-acute tegular process.

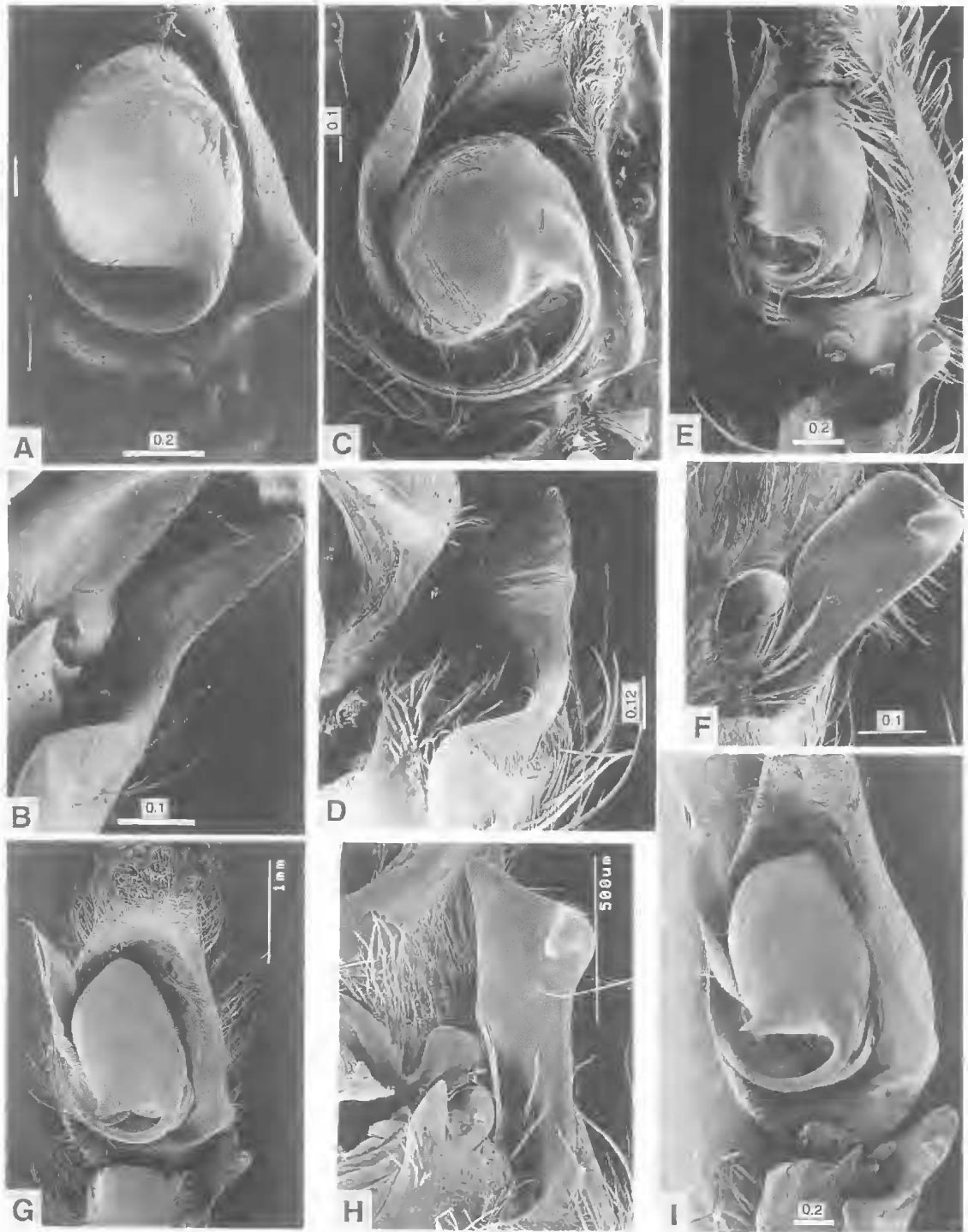


FIG. 10. A,B, *Heteropoda conwayensis*; C,D, *H. monroei*; E,F, *H. goonaneman*; G,H, *H. bulburin*; I, *H. acuta*. A-I, ♂ palps and tibial apophyses.

***Heteropoda eungella* sp.nov.**

(Figs 8L-N; 9I,J; 19A)

TYPE MATERIAL

HOLOTYPE: ♂, Mt William, Eungella National Park, mideastern Queensland, 21°01'S, 148°36'E, 17-24.iii.1975, MG, CH, AMKS7379.

PARATYPE: ♀, Creek bank near school-house, Eungella National Park, mideastern Queensland, 13.ii.1986, RJR, JG, QMS21031.

ETYMOLOGY

From the type locality, Eungella National Park.

DIAGNOSIS

Medium size. Sternum with pattern (Fig. 8N). Venter black, with pale lateral lines of spots/stripes and two short thick paramedial stripes. Tegulum rounded prolaterally, long tegular flange. Median septum narrow, broadening suddenly to transverse bar; insemination ducts with one coil.

DESCRIPTION

Male (holotype): CL 7.0, CW 6.2, AL 6.5, AW 3.9. Spination: femora I 32(3)3, II, III 323, IV 321; patella I, III, IV 001, II 101; tibiae I, II 2326, III 2126, IV 2226. ♂ palp (Fig. 9I,J): tibial apophysis tapering to incurved tip.

Female: CL 7.3, CW 6.5, AL 8.5, AW 4.8. Spination: femora I-III 323, IV 321; patellae I-IV 001; tibiae I-IV 2026. Epigynum (Fig. 8L,M).

REMARKS

This species is known only from rainforests at about 1000m at Eungella, mideastern Queensland.

***Heteropoda conwayensis* sp.nov.**

(Figs 8O-Q; 10A,B; 19A)

TYPE MATERIAL

HOLOTYPE: ♂, Cape Hillsborough National Park, mideastern Queensland, 20°54'S, 149°03'E, 5.i.1975, KRM, QMS15189.

PARATYPES: ♀, same data QMS15190; 2 ♀, QMS14764. 2 ♀ Brandy Ck, 20°20'S, 148°38'E, 21-26.iv.1975, RM, VED, QMS14763. 2 ♀, ♂ Conway National Park, 20°21'S, 148°48'E, 22.i.1975, KRM, QMS14765; 2 ♀, 13.ii.1975, KRM, S14766. ♀, in log, Mt Dryander, 20°15'S, 148°32'E, 21-26.iv.1975, MG, CH, AMKS7355. All in mideastern Queensland.

ETYMOLOGY

From the locality, Conway National Park.

DIAGNOSIS

Small. Sternum without pattern. Venter with dark trapezoid area delimited by pale lateral bands (Fig. 8Q); two sub-central lines of 2-7 white tufts of setae. Long tegular flange, no tegular process. Median septum short, gradually broadening to thick transverse bar; insemination ducts with ½ coil.

DESCRIPTION

Male (holotype): CL 5.7, CW 5.3, AL 5.5, AW 3.3. Colour: venter with dark shield, extending beyond the trapezoid area. Spination: femora I-III 323, IV 321; patellae I-III 001, IV 101; tibiae I-IV 2226. ♂ palp (Fig. 10A,B): long tapering tibial apophysis with curved tip.

Female: CL 6.2, CW 5.7, AL 7.1, AW 4.6. Colour pattern: similar to male but less distinct. Spination: femora I, II 323, III 322(3), IV 321; patellae I-III 000, IV 001; tibiae I 1026, II, III 2026, IV 20(1)26. Epigynum (Fig. 8O,P).

REMARKS

H. conwayensis appears to be a coastal rain-forest species. It may be distinguished from *H. eungella* by venter and sternal patterns and by shorter insemination ducts in female.

THE CERVINA GROUP

Small-large. MOQ longer than wide. Venter pattern variable. Tegulum longer than wide (exc. *H. monroei*), tegular flange as long as tegulum. Pointed tegular process (exc. *H. monroei*). Tibial apophysis with 'tooth'. ♀ median septum of epigynum tongue-like, as long as or more usually longer than lateral lobes. Insemination ducts with ½-3 coils.

Heteropoda cervina (L. Koch) and the following new species, *H. monroei*, *H. goonaneman*, *H. spurgeon*, *H. bulburin*, *H. acuta*, *H. willunga*, *H. rundle*, *H. monteithi*, *H. crediton*, *H. silvatica* and *H. cooloola*.

***Heteropoda monroei* sp.nov.**

(Figs 10C,D; 18)

TYPE MATERIAL

HOLOTYPE: ♂, Homevale, mid-eastern Queensland, 21°27'S, 148°32'E. campsite, 1-7.iv.1975, VED, RM, QMS15175.

ETYMOLOGY

For Ronald Monroe, co-collector of the holotype.

DIAGNOSIS

Small. Tegulum wider than long with postero-prolateral bulge without pointed tegular process; tibial apophysis with large thorn-like 'tooth'.

DESCRIPTION

Male (holotype): CL 6.3, CW 5.8, AL 7.0, AW 4.0. Colour: slight mottling on venter, short, dark V posteriorly. Spination: femora I-III 323, IV 321; patellae I, III, IV 101, II 001; tibiae I-III 2226, IV 22(1)26. ♂ palp (Fig. 10C,D): ratio of cymbium length: length from anterior rim of alveolus to tip is 1:0.6.

The female is unknown.

REMARKS

H. monroei is placed in the *cervina* group because of the tooth on tibial apophysis. It is the only species in the group without a pointed tegular process.

***Heteropoda goonaneman* sp.nov.**
(Figs 8R,S; 10E,F; 19C)

TYPE MATERIAL

HOLOTYPE: ♂, Mt Goonaneman, via Childers, southeastern Queensland, 25°26'S, 152°08'E, 670m, 3-6.xi.1980, VED, RJR, QMS15185.

PARATYPES: ♀, ♂, Amamoor Ck, 26°22'S, 152°37'E, 29.xi.1975-29.ii.1976, GBM, SRM, QMS14809; ♂, Casey Ck, via Imbil, 10.viii-9.xi.1974, GBM, SRM, QMS14811; ♂, ♀, Cold Ck, via Imbil, 9.xi.-31.xii.1974, GBM, SRM, QMS14810; ♀, Mt Goonaneman, 3-4.xi.1980, VED, RJR, QMS15186, 3 ♂, 5 ♀, same data QMS15214; ♀, 13.xii.1976-31.iii.1977, GBM, SRM, QMS14808; ♀, Brooyar State Forest, 26°01'S, 152°24'E, 17.iv.1982, AR, D. Sinclair, QMS14806; ♀, 23.viii.1975-29.ii.1976, 457m, GBM, SRM, QMS14721; ♀, Mt Bauple, 25°47'S, 152°34'E, 26.viii-9.xii.19716, GBM, SRM, QMS14720. All in southeastern Queensland.

ETYMOLOGY

From the type locality, Mt Goonaneman.

DIAGNOSIS

Large. Venter without discernible pattern. Short ventro-prolateral tegular process; tibial apophysis broad, truncated with tooth on posterior corner. Median septum almost as long as lateral lobes; insemination duct with one coil.

DESCRIPTION

Male (holotype): CL 8.3, CW 7.8, AL 8.9, AW 5.1. Colour: faint brown mottling. Spination:

femora I-III 323, IV 321; patellae I-III 101, IV 001; tibiae I 3326, II, III 2326, IV 2226. ♂ palp (Fig. 10E,F).

Female: CL 10.6, CW 9.1, AL 15.1, AW 9.7. Spination: femora I, II 323, III 322, IV 321; patellae I, II, IV 001, III 101; tibiae I 2026, II-IV 2126. Epigynum (Fig. 8R,S).

***Heteropoda spurgeon* sp.nov.**
(Figs 8T,U; 19C)

TYPE MATERIAL

HOLOTYPE: ♀, 4km NNE Mt Spurgeon, north Queensland, 16°24'S, 145°13'E, 15-20.x.1991, 1250-1300m, GBM, DC, HJ, LR, QMS21032.

PARATYPES: ♀, 2km SE Mt Spurgeon via Mt Carbine, 16°26'S, 145°13'E, 1100m, 20-21.xii.1988, GBM, GT, QMS16532; ♀, Pauls Luck, Platypus Ck, 13km W Mossman, 16°27'S, 145°15'E, 1100m, 1-2.i.1990, AE, QMS21033; ♀, 2km ESE Mossman Bluff, 16°27'S, 145°17'E, 1000m, 17-19.xii.1988, GBM, GT, QMS15266; ♀, Mt Formantine South, 16°47'S, 145°38'E, 700m, 23-24.xi.1990, GBM, GT, QMS21034. All in northeastern Queensland.

ETYMOLOGY

From the type locality Mt Spurgeon.

DIAGNOSIS

Large. Trapezoid area of venter pale brown with posterior mottling. Median septum of epigynum broad, as long as lateral lobes, rounded distally.

DESCRIPTION

Female (holotype): CL 9.6, CW 8.6, AL 12.0, AW 8.4. Colour: short pale cardiac stripe, paired dark abdominal spots faint, posterior dark W-shaped patch of hair. Spination: femora I-III 323, IV 321; patellae I-III 101, IV 000; tibiae I-IV 2026. Epigynum (Fig. 8T,U): median septum as long as lateral lobes; insemination duct with 1½ coils. Variation: abdominal pattern clear in paratypes.

The male is unknown.

***Heteropoda bulburin* sp.nov.**
(Figs 8V-X; 10G,H; 19C)

TYPE MATERIAL

HOLOTYPE: ♂, Bulburin State Forest, mid-eastern Queensland, 24°31'S, 151°29'E, complex notophyll rainforest with *Araucaria* emergents, 17-24.iii.1975, RK, VED, QMS14724.

PARATYPES: Bulburin State Forest: ♀, same data as holotype QMS21035; ♀, QMS14722; ♂, QMS14726; ♀, 25-8.iii.1977, RJR, VED, QMS14725; ♀, 17-24.iii.1975, MG, CH, AMKS6779.

ETYMOLOGY

From the type locality, Bulburin State Forest.

DIAGNOSIS

Large. Trapezoid area of venter pale and mottled (Fig. 8X), Tegular process directed prolaterally. Tibial apophysis indented at tip with tooth on shorter posterior fork. Insemination ducts with ½ coil.

DESCRIPTION

Male (holotype): CL 9.7, CW 8.5, AL 10.0, AW 5.9. Colour: trapezoid area defined by pale lateral lines. Spination: femora I-III 323, IV 321; patellae I-IV, 101; tibiae I-III 2326, IV 2226. ♂ palp (Fig. 10G,H).

Female: CL 10.4, CW 9.2, AL 12.7, AW 8.8. Spination: femora I-III 323, IV 321; patellae I, II 001, III, IV 101; tibiae I-III 2126, IV 2226. Epigynum (Fig. 8V,W): broad median septum level with posterior edge of lateral lobes.

REMARKS

H. bulburin is closely allied to *H. goonaneman* from which it may be distinguished by the distal indentation of ♂ tibial apophysis and shorter ♀ insemination ducts.

Heteropoda acuta sp.nov. (Figs 11A-C; 10I; 19C)

TYPE MATERIAL

HOLOTYPE: ♂, Wallaby Ck, near Helenvale, north eastern Queensland, 15°44'S, 145°15'E. 15.xi.1974. JC, KRM, DJ, VED, QMS15183.

PARATYPES: ♀, same data as holotype, QMS15184; ♂, 6 ♀, Wallaby and Granite Cks, 11.xi.1974, JC, KRM, DJ, VED, QMS14695; 2 ♂, QMS14696; ♀, JC, T. Tebble, VED, QMS14697. Mt Bellenden Ker, 17°16'S, 145°51'E: ♂, 1054m, 17-24.x.1981, EWQM, QMS14701; 2 ♀, 500m, 17-24.x.1981, EWQM, VED, QMS14700; 2 ♀, Mt Finnigan, 15°49'S, 145°17'E, 850-1100m, 19-22.iv.1982, GBM, DY, DC, QMS14702; ♂, same data, QMS14703; ♂, ♀, Twelve Mile Scrub, 15°48'S, 145°19'E, 22-27.xi.1975, VED, RM, QMS14698; 3 ♀, Mt Finlay, 15°49'S, 145°21'E, 29.xi.-4.xii.1975, VED, RM, QMS14698. All in north-eastern Queensland.

ETYMOLOGY

From the Latin *acutus* meaning pointed, referring to the sharply pointed tegular process.

DIAGNOSIS

Large. Venter slightly mottled. Tegular process pointing prolaterally; tibial apophysis rounded distally with sub-distal tooth on posterior edge. Median septum narrowed distally extending beyond lateral lobes; insemination duct tight ½ coil.

DESCRIPTION

Male (holotype): CL 7.9, CW 7.1, AL 7.9, AW 5.1. Spination: femora I-III 323, IV 3(4)21; patellae I, II, 101, III, IV 001; tibiae I-III 2326, IV 2226. ♂ palp (Fig. 10I).

Female: CL 11.1, CW 9.8, AL 11.9, AW 7.9. Colour: less distinct than in male. Spination: femora I-III 323, IV 321; patellae I, II 001, III, IV 000; tibiae I-IV 2026. Epigynum (Fig. 11A,B): long broad median septum ending in a knob.

REMARKS

The long median septum distinguishes *H. acuta* from females of other species (*H. holovertris*, *H. cooki*) in this area and the toothed tibial apophysis distinguishes it from other males.

Heteropoda cervina (L. Koch, 1875) (Figs 2L; 11D-F; 12A,B; 19B)

Sarotes cervinus Koch, 1875: 673; 1876: 854.

Heteropoda cervina: Simon, 1880: 270; Hogg, 1902: 416; Jarvi, 1914: 76, 200.

Heteropoda keyserlingi Hogg, 1902: 418 - new synonymy.

TYPE MATERIAL

LECTOTYPE: ♂, Peak Downs, 22°56'S, 148°05'E, mideastern Queensland, Amalie Dietrich, ZMH - here designated.

PARALECTOTYPES: 2 ♀, Peak Downs, BMNH 1890.7.1.3095, 3096; 2 ♀, ♂, Bowen, 20°01'S, 148°15'E, mideastern Queensland, BMNH 6457-6459, Koch Coll.; ♀, Rockhampton, 23°22'S, 150°32'E, mideastern Queensland, ZMH (Godellfroy No. 11010).

OTHER MATERIAL

2 ♀ syntypes of *Heteropoda keyserlingi*, Peak Downs, BMNH; 2 ♂, Yeppoon, QDPI Ar378; 3 ♀, Homevale, nr Nebo, QMS14728; ♂, Rockhampton, QMS21036;

♀, Emu Park, Rockhampton, QMS14730. All in mideastern Queensland.

DIAGNOSIS

Medium-large size. Venter with dark trapezoid area with two pale converging lines. Tegulum with pointed ventro-prolateral tegular process; long, paddle-shaped tibial apophysis with a mound on central anterior edge; a triangular thorn-like fold ('tooth') centrally (Fig. 12A,B). Median septum of epigynum extending beyond lateral lobes, terminally rounded, length:width, 1:0.3; insemination ducts with 1½ coils.

DESCRIPTION

Male (lectotype): CL 8.0, CW 7.3, AL 7.9, AW 4.3. This matches in size the male described and illustrated in Koch (1875). Colour: abdominal pattern faded, venter with black trapezoid area with poorly defined pale converging lines. Spination: femora I, II 323, III 322, IV 321; patellae I-IV 101; tibiae I-IV 2326. ♂ palp (Fig. 11F): embolus not reaching end of conductor.

Female (paralectotype): CL 8.0, AL 6.6, AL 11.2, AW 7.5. Colour: faded, similar to male. Spination: femora I, II 323, III 322, IV 321; patellae I, II, IV 101, III 001; tibiae I-III 2026, IV 2226. Epigynum (Fig. 11D,E). Variation: ♀ from Bowen has a tighter apical fold in insemination ducts and variable tibial spination. 3♀ from Homevale are larger and have 2 dorsal spines on tibiae III.

REMARKS

The type locality, Peak Downs is much changed with depletion of forest habitat due to mining (including smelting) and latterly grazing. No fresh material has been collected from here. 2♀ syntypes, *Sarotes cervinus* Koch, Port Mackay, ZMB (Godeffroy No.3453) are considered to be *H. crediton* sp.nov. *Heteropoda cervina* is closely related to *H. willunga* sp.nov. and *H. rundle* sp.nov.

Heteropoda willunga sp.nov. (Figs 11G,H; 12C; 19B)

TYPE MATERIAL

HOLOTYPE: ♂, Forty Mile Scrub, 18°05'S, 144°53'E, SW of Mt Garnet, northeastern Queensland, 9-14.iv.1978, VED, RJR, QM QMS15239.

PARATYPES: 2 ♂, same data as holotype, QMS15170; ♀, same data as holotype, QMS15240.

ETYMOLOGY

From *willunga*, an Aboriginal word meaning 'dry vine scrub'.

DIAGNOSIS

Large. Trapezoid arca with two converging lines of closely spaced pale dots. Tegulum with prolaterally directed process; tibial apophysis with large medial tooth. Broad median septum; ratio of length:width is 1:0.4; insemination ducts with one coil.

DESCRIPTION

Male (holotype): CL 8.2, CW 8.1, AL 9.2, AW 4.9. Colour: venter with brown trapezoid area and 2 lines of pale dots. Spination: femora: I-III, 323, IV 321; patellae I-IV 101; tibiae I-III 2326, IV 2226. ♂ palp (Fig. 12C) very like *H. cervina*.

Female: CL 9.6, CW 8.7, AL 11.7, AW 7.7. Spination: femora I-III 323, IV 321; patellae I-IV 101; tibiae I 2026, II, IV 2126, III 2226. Epigynum (Fig. 11G,H).

REMARKS

H. willunga may be distinguished from *H. cervina* by the broader median septum and one coil, rather than 1½ coils, in the insemination duct.

Heteropoda rundle sp. nov. (Figs 11I,J; 12D; 19B)

TYPE MATERIAL

HOLOTYPE: ♂, Rundle Range, mideastern Queensland, 23°40'S, 151°00'E, 24-31.iii.1975, VED, RK, QMS14738.

PARATYPES: Mideastern Queensland: ♀, same data as holotype, QMS21000; 2 ♂, QMS21185; Kroombit Tops, 24°22'S, 151°00'E: 2 ♀, 2 ♂, 14.xii.1983, R. Leggat, QMS14729; 2 ♀, 22-26.ii.1982, RJR, QMS14735; ♂, 9-19.xii.1983, VED, JG, QMS14753; ♀, 3-4.ii.1984, GBM, DY, C. Hagan, QMS14740; ♂, 13-18.xii.1983, VED, JG, QMS14752; ♀, 9-19.xii.1983, GBM, GT, QMS14733; ♀, Bulburin Plateau, 24°31'S, 151°29'E, 5.x-30.xii.1974, GBM, SRM, QMS14736. Southeastern Queensland: ♂, Coalstoun Lakes, 25°37'S, 151°53'E, 25km SW Biggenden, 26.iii-5.ix.1977, GBM, SRM, QMS14739. 2 ♂, Burnett Ra., 15km NE Tansey, 26°03'S, 152°03'E, 1976-77, GBM, SRM, QMS14744; ♂, same data, QMS14747; 2 ♂, Gallangowan, 26°26'S, 152°17'E, 26.iii-16.vi.1975, GBM, SRM, QMS14750.

ETYMOLOGY

From the type locality, Rundle Range.

DIAGNOSIS

Medium size. Tegulum with prolaterally directed process; tibial apophysis with central tooth. Tip of median septum rounded but not knob-like; insemination ducts with 2 coils.

DESCRIPTION

Male (holotype): CL 7.2, CW 6.7, AL 7.5, AW 4.4. Colour: venter like *H. cervina*. Spination: femora I-III 323, IV 321; patellae I-IV 001; tibiae I, II 2326, III, IV 2226. ♂ palp (Fig. 12D); embolus reaching almost to end of conductor.

Female: CL 7.8, CW 7.3, AL 9.6, AW 6.3. Spination: femora I-III 323, III 321; patellae I-III 001, IV 101; tibiae I-III 2026; IV 2226. Epigynum (Fig. 11I,J).

REMARKS

H. rundle is closely related to *H. cervina* but may be distinguished by 2 (rather than 3) dorsal spines on ♂ tibiae III, IV. The tip of the median septum is not knoblike as in *cervina* and insemination ducts have 2 rather than 1½ coils.

***Heteropoda monteithi* sp.nov.**
(Figs 11K,L; 12F,G; 19C)

TYPE MATERIAL

HOLOTYPE: ♂, Yandaburra, 125km SW Springsure, central Queensland, 24°42'S, 147°30'E, 7.v.1976, C. Fearnley, QMS15177.

PARATYPES: ♀, Mt Moffat Nat. Pk, central Queensland, 25°01'S, 147°57'E, Mahogany Forest, 1000m, 11-12.xii.1987, GBM, GT, DY, QMS14472; ♀ same data, QMS14478; ♀, same locality, 12.xii.1987, DY, QMS14474; ♂, Lake Nuga Nuga, nr Rolleston, central Queensland, 25°01'S, 148°42'E, 10.v.1978, KMD, QMS15176.

ETYMOLOGY

For Geoffrey Monteith, whose collections from mountain tops in Queensland figure prominently in this revision.

DIAGNOSIS

Medium size. Tegulum almost as wide as long, pointed postero-prolateral process; tooth on tibial apophysis forward of posterior edge; proximal mound on anterior edge. Median septum longer than lateral lobes; insemination duct with 3 coils.

DESCRIPTION

Male (holotype): CL 7.3, CW 6.4, AL 7.9, AW 4.4. Colour: trapezoid area of venter brown, paler in centre, slight evidence of 2 pale lines of dots.

darker V posteriorly. Spination: femora I, II 323, III 322, IV 321; patellae I-IV 101; tibiae I-IV 2226. ♂ palp (Fig. 12F,G).

Female: CL 7.3, CW 6.7, AL 7.5, AW 4.5. Colour: trapezoid area of venter dark brown; two lines of pale spots merging anteriorly to give pale central region. Spination: femora I, II 323, III 322, IV 321; patellae I-III 001, IV 101; tibiae I-III 2026, IV 21(2)26. Epigynum (Fig. 11K,L).

***Heteropoda crediton* sp.nov.**
(Figs 11P-R; 12H,I; 19C)

TYPE MATERIAL

HOLOTYPE: ♂, Crediton, mideastern Queensland, 21°13'S, 148°33'E, complex notophyll vine forest, 14-21.iv.1975, RK, VED, QMS15208.

PARATYPES: ♀, same data as holotype, QMS15209; ♀, ♂, QMS14916; ♂, QMS15211; 4 ♂, ♀, Homevale, 21°27'S, 148°32'E, riverine forest, 1-7.iv.1975, RK, VED, QMS15210; ♂, Dalrymple Heights, nr Eungella, 21°08'S, 148°30'E, 1000m, 7-14.iv.1975, MG, CH, AMKS7341; 3 ♂, Dalrymple Heights, 7-14.iv.1975, MG, CH, AMKS7340; 2 ♂, 4 ♀, Finch Hatton, 21°07'S, 148°38'E, 7-14.iv.1975, RK, VED, QMS15213; ♂, same data, QMS14919; ♀, Eungella National Park, 21°10'S, 148°24'E, 2.ii.1975, KRM, QMS14915; 2 ♀, Eungella National Park, 3.iii.1975, KRM, QMS14912; 2 ♂, Broken River, Eungella National Park, 21°12'S, 148°33'E, 4-5.ix.1988, JG, T. Churchill, QMS13849; ♀, Dalrymple Hgts, 21°08'S, 148°30'E, iii-iv.1975, MG, CH, AMKS0294; 3 ♂, same data, AMKS7340; ♂, AMKS7341. All in mideastern Queensland.

ETYMOLOGY

From the type locality, Crediton.

DIAGNOSIS

Large. Venter with brown trapezoid area with two pale stripes (Fig. 11R), sometimes indistinct. Long tegular process pointing posteriorly; tibial apophysis rounded with sub-apical posterior tooth, sperm duct with small coil before entering embolus. Median septum as long as lateral lobes; insemination ducts with 3 coils.

DESCRIPTION

Male (holotype): CL 9.8, CW 9.2, AL 10.0, AW 5.4. Colour: light brown venter, darker trapezoid area with two pale stripes. Spination: femora I-III 323, IV 321; patellae I-IV 101; tibiae I, II, IV 2226, III 2326. ♂ palp (Fig. 12H,I).

Female: CL 10.0, CW 9.6, AL 13.1, AW 8.1. Colour: similar to male. Spination: femora I-III

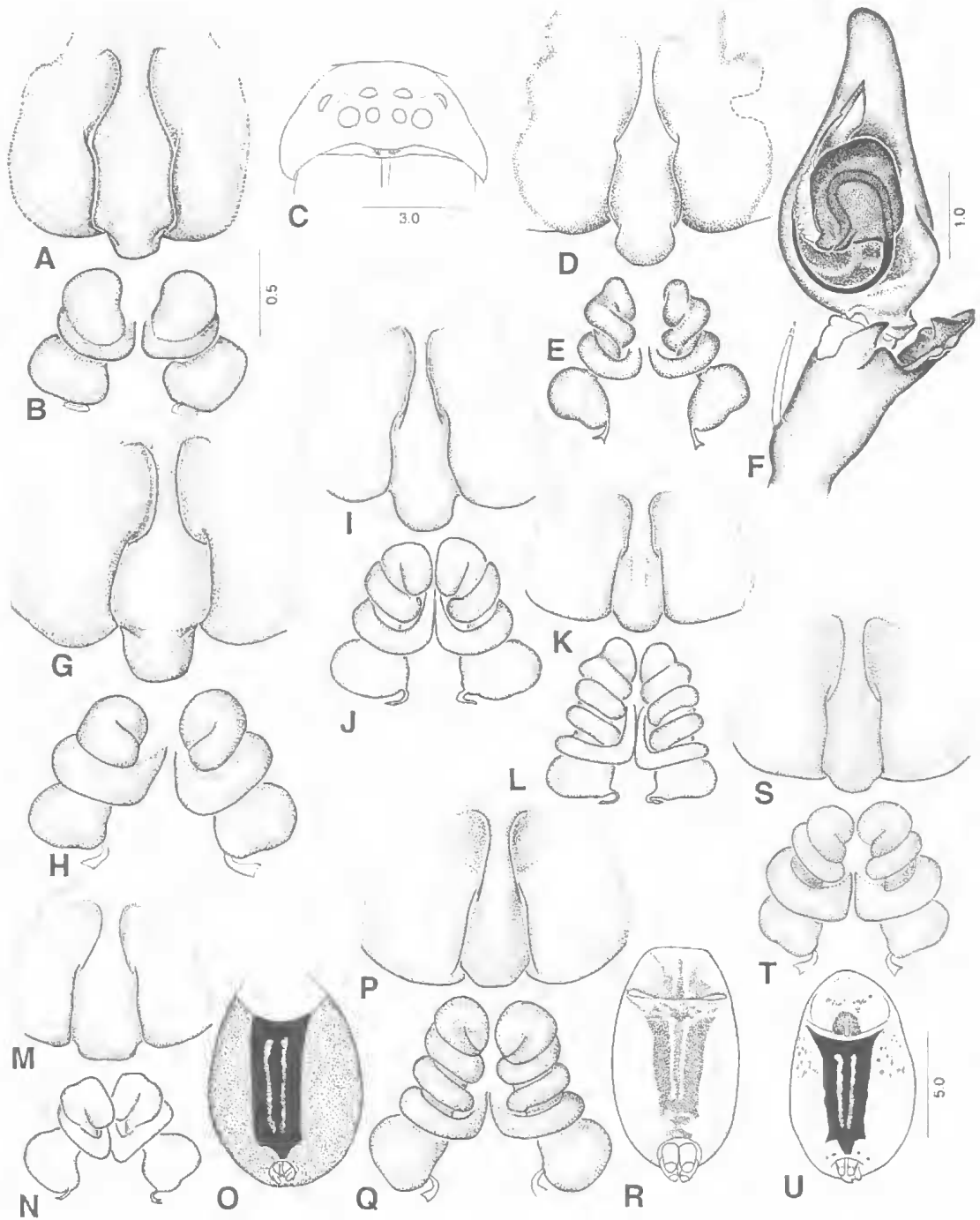


FIG. 11. A-C, *Heteropoda acuta*; D-F, *H. cervina* (F, lectotype); G,H, *H. willunga*; I,J, *H. rundle*; K,L, *H. monteithi*; M-O, *H. cooloola*; P-R, *H. crediton*; S-U, *H. silvatica*. A,B,D,E,G-N,P,Q,S,T, epigyna; C, eyes from front; F, ♂ palp; O,R,U, ventral abdomen.

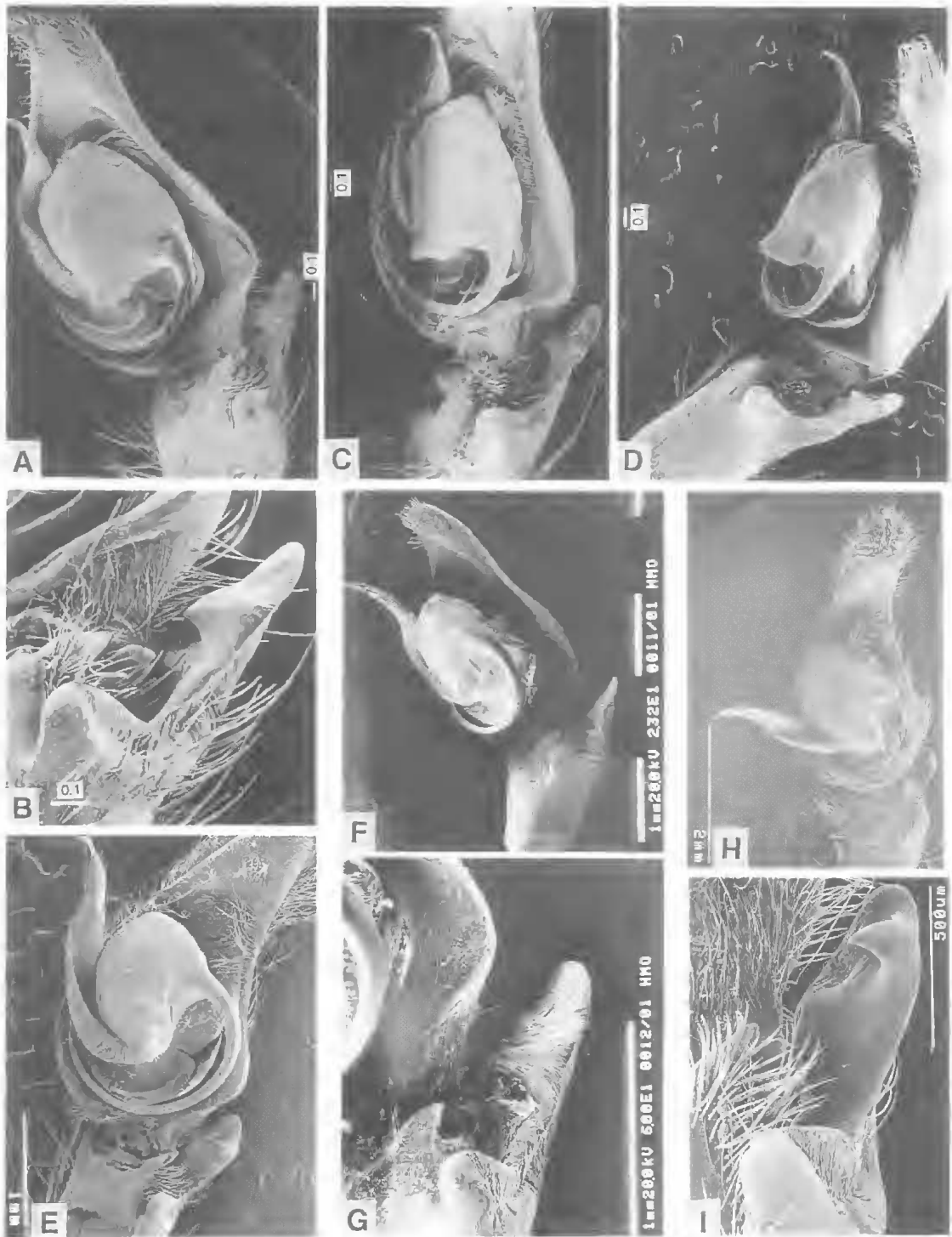


FIG. 12. A,B, *Heteropoda cervina*; C, *H. willunga*; D, *H. rundle*; E, *H. silvatica*; F,G, *H. monteithi*; H,I, *H. crediton*. A-I, ♂ palps and tibial apophyses.

323, IV 321; patellae I-IV 101; tibiae I, II 2026, III 2126, IV 2226. Epigynum (Fig. 11P,Q).

REMARKS

2 ♀ syntypes of *Sarotes cervinus* Koch, Port Mackay, ZMB (Godeffroy No. 3453) are considered to be *H. crediton*.

Heteropoda silvatica sp. nov. (Figs 11S-U; 12E; 19C)

TYPE MATERIAL

HOLOTYPE: ♂, Gold Creek Reservoir, Brookfield, southeastern Queensland, 27°27'S, 152°52'E, complex notophyll vine forest with *Araucaria* emergents, 30.x.-14.xi.1980, VED, RJR, QMS15127.

PARATYPES: ♀, Gold Creek Reservoir, Brookfield, 22.i.81, VED, RJR, QMS15128; ♂, Upper Brookfield, 27°29'S, 152°52'E, 5.x.-11.xi.1981, RJR, QMS15131; ♀, Upper Brookfield, 28.xi.-11.xii.1980, VED, RJR, QMS15130; ♂, Mt Nebo, 27°23'S, 152°47'E, 2.xii.1979, GI, QMS15132; ♀, Brookfield, 110m, 9.xi.1975-27.ii.1976, GBM, SRM, QMS15134; ♀, Kenmore, Brisbane, viii.1971, J. Hodge, QMS15129; ♀, Mt Nebo, 19.xii.1972, D. Dale, QMS15133; ♂, Flinton Hill via Ipswich, 27°31'S, 152°44'E, 120m, 9.xi.1975-27.ii.1976, GBM, SRM, QMS15138; ♂, Casey Ck via Imbil, 26°28'S, 152°41'E, 27.iii-16.vi.1975, GBM, SRM, QMS15136; 2 ♀, ♂, Elgin Vale, 30km NE Nanango, 26°27'S, 152°12'E, 610m, 17.x-12.xii.1976, GBM, SRM, QMS15140; ♀, Elgin Vale, 26.iii-28.x.1977, GBM, SRM, QMS15137; ♀, Deer Reserve via Kilcoy, 26°57'S, 152°34'E, 19.ix.1974-11.i.1975, 457m, GBM, SRM, QMS14751; ♀, Neurum Valley, 27°02'S, 152°42'E, GBM, SRM, QMS14741; ♂, Yarraman State Forest, 26°51'S, 151°59'E, 4.vii.1982, AR, QMS14745; ♀, Camira, Brisbane, 3.iv.90, RJR, QMS12537. All in southeastern Queensland.

ETYMOLOGY

From the Latin *silva*, meaning forest, referring to the forest habitat.

DIAGNOSIS

Medium size. Tegulum about as wide as long; process pointing posteriorly; tibial apophysis rounded with tooth inside posterior margin. Median septum longer than lateral lobes; insemination ducts with two loose coils and tight apical fold.

DESCRIPTION

Male (holotype): CL 6.5, CW 6.1, AL 6.3, AW 4.3. Colour: venter pale brown, mottled;

trapezoid area brown-black with series of small pale spots forming two lines (Fig. 11U). Spination: femora I-III 323, IV 321; patellae I-IV 101; tibiae I-IV 2326. ♂ palp (Fig. 12E). Variation: males from Imbil, Nanango and Elgin Vale have two dorsal spines on tibiae III, IV.

Female: CL 6.5, CW 6.1, AL 9.6, AW 5.4. Spination: femora I, II 323, III 322, IV 321; patellae I-III 001, IV 101; tibiae I-III 2026, IV 2226. Epigynum (Fig. 11S,T).

Heteropoda cooloola sp. nov. (Figs 11M-O; 14A,B; 19B)

TYPE MATERIAL

HOLOTYPE: ♂, Searys Scrub, Cooloola National Park, southeastern Queensland, 26°08'S, 153°03'E, in complex notophyll rainforest on sand, 3-8.ii.1976, VED, RJR, QMS15206.

PARATYPES: ♀, QMS15207; ♀, Searys Scrub, Cooloola National Park, 3-8.ii.1976, VED, RJR, QMS14762; ♂, Fraser I, 25°33'S, 152°59'E, 19.x.1977, T. Schaeffer, QMS14760; 2 ♀, Camp Milo, Cooloola National Park, 3-8.ii.1976, VED, RJR, QMS14759; ♂, Teewah Ck, Cooloola, 13.vii.1973, RJR, QMS14761. All in southeastern Queensland.

ETYMOLOGY

From the type locality, Cooloola National Park.

DIAGNOSIS

Medium size. Venter with well defined trapezoid area with two pale lines (Fig. 11O). Tegulum longer than wide; tegular process acute, pointing ventro-posteriorly. Median septum longer than lateral lobes; insemination ducts with one coil and loose apical fold.

DESCRIPTION

Male (holotype): CL 7.7, CW 6.6, AL 7.2, AW 4.4. Spination: femora I-III 323, IEV 321(2); patellae I-IV 101; tibiae I-III 2326, IV 2226. ♂ palp (Fig. 14A,B); tibial apophysis broad, spatulate, mound on anterior edge and tooth midway on posterior margin.

Female: CL 7.2, CW 6.2, AL 11.9, AW 8.0. Spination: femora I-III 323, IV 321; patellae I, II, IV 101, III 001; tibiae I, II 2026, III 20(1)26, IV 2226. Epigynum (Fig. 11M,N).

AN UNASSIGNED SPECIES

***Heteropoda raveni* sp.nov.**
(Figs 13A-C; 19C)

TYPE MATERIAL

HOLOTYPE: ♀, Gordon Ck, Iron Ra., northeastern Queensland, 12°44'S, 143°17'E, 24-30.vi.1976, RJR, VED, QMS14805.

PARATYPES: 3 ♀, same data, QMS21187; ♀, Iron Ra., 1-17.viii.1978, GVC, SVD, QMS14804.

ETYMOLOGY

For Robert Raven, my colleague and co-collector of many spiders.

DIAGNOSIS

Large with dark cross-bars on legs. Pale venter. MOQ as wide as long. Clypeus more than x2 AME (Fig. 13C) cf. *H. acuta* (Fig. 11C). Narrow ridge to halfway down median septum; insemination ducts ½ coil.

DESCRIPTION

Female (holotype): CL 11.3, CW 10.0, AL 12.3, AW 7.5. Eyes: both rows recurved from top - AR straight from front. Legs: 2413. Spination: femora I-III 323, IV 331; patellae I-III 001, IV 101; tibiae I, II 2026, III 2126, IV 2226. Epigynum (Fig. 13A,B): pale, lightly sclerotized insemination duct with half a coil; spermathecae without obvious prolateral bulge (cf. *hermitis* group). Variation: dorsal tibial spination of III, IV was variable in other females.

The male is unknown.

REMARKS

H. raveni resembles the *hermitis* group in having a ridge on the median septum. However along with other differences the structure of the internal epigynum is so different from the many coils of the *hermitis* group, that *raveni* is unassigned to a group; the discovery of a male may resolve its placement.

THE HERMITIS GROUP

Medium-sized to large spiders. Pattern on dorsal abdomen not always clearly defined, venter pale. Legs, 2143 or 21=43. MOQ slightly longer than wide. Embolus arising anteriorly or mid-retrolaterally on tegulum, almost encircling it to lie on outside of conductor. Longitudinal ridge on median septum of epigynum; 3½-7 coils in insemination duct; lobed spermathecae.

Heteropoda hermitis (Hogg) and the following new species, *H. marillana*, *H. spenceri*, *H. cavernicola*, *H. renibulbis*, *H. kalbarri*, and *H. grooteeylandi*.

***Heteropoda marillana* sp.nov.**
(Figs 2M; 13F; 18)

TYPE MATERIAL

HOLOTYPE: ♂, Marillana Station, Western Australia, 22°38'S, 119°24'E, 15.vii.1964, A.M. Douglas, WAM88/1948.

ETYMOLOGY

From the type locality, Marillana Station.

DIAGNOSIS

The front row of eyes is slightly procurved. Tibial apophysis with tapering hook on posterior edge.

DESCRIPTION

Male: CL 8.8, CW 8.0, AL 9.4, AW 5.6. Eyes: AME:ALE:PME:PLE is 20:45:30:50. AME small, on mound, AR slightly procurved from top, strongly procurved from front, PR recurved. Clypeus more than x2 AME. Leg spination: femora I-III 323, IV 321; patellae I-IV 101; tibiae I-III 2326, IV 22(3)26. ♂ palp (Fig. 13F): ratio of cymbium length: cymbial tip is 1:0.6; tegulum rounded; tegular flange retrolateral. Embolus very long, filiform, arising anteriorly and encircling tegulum. Tibial apophysis rectangular with distal tapering hook on posterior edge.

The female is unknown.

REMARKS

H. marillana is the only species that has a slightly procurved anterior row of eyes. The small AME on a tubercle probably result in the slight procurvature of the AR and longer than usual clypeus.

***Heteropoda spenceri* sp.nov.**
(Figs 13D,E; 18)

TYPE MATERIAL

HOLOTYPE: ♀, Barrow Ck, Northern Territory, 21°32'S, 133°53'E. 1902, Spencer and Gillen Expedition, VMK-3003.

ETYMOLOGY

For Sir Baldwin Spencer who led the expedition during which this spider was collected

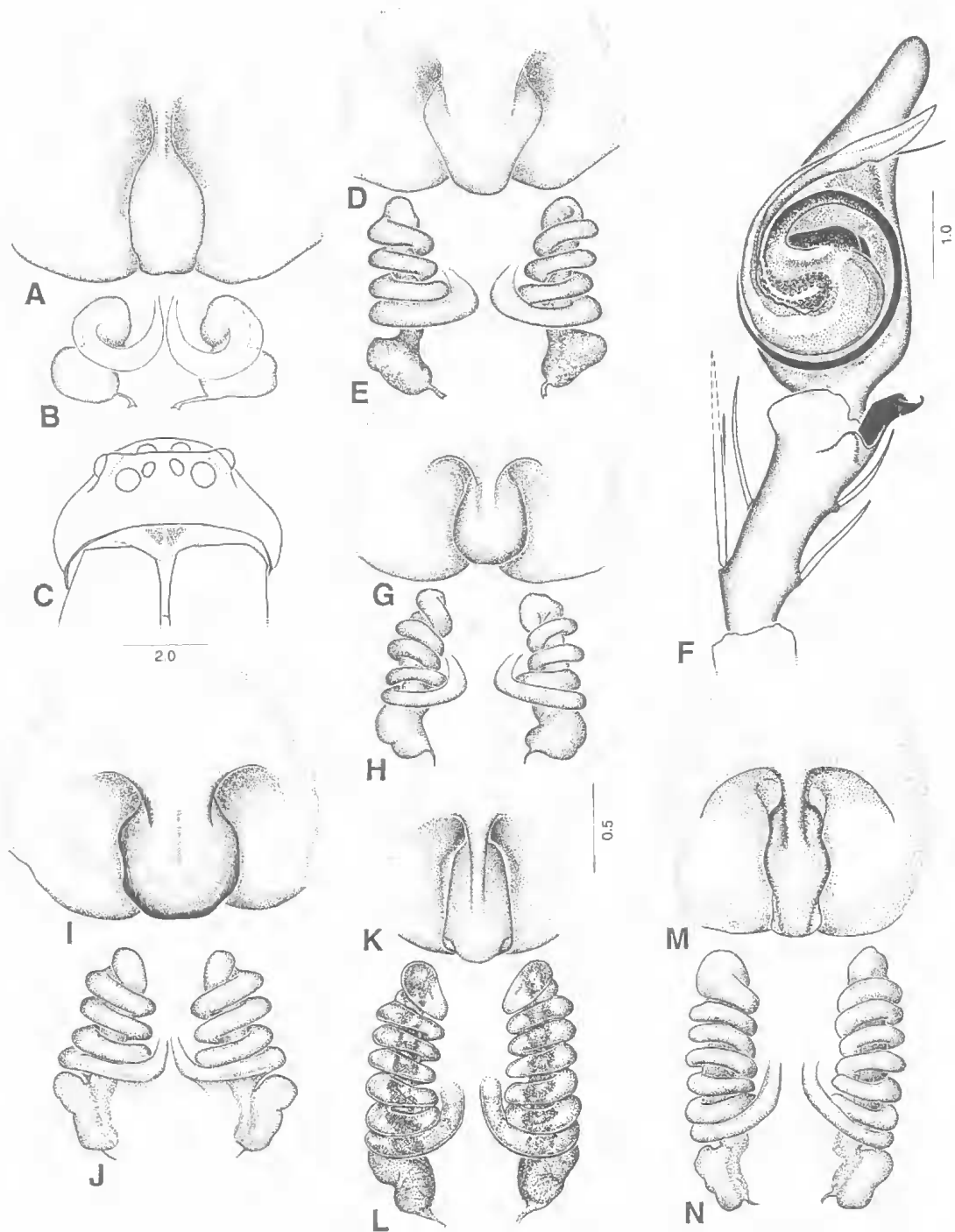


FIG. 13. A-C, *Heteropoda raveni*; D,E, *H. spenceri*; F, *H. marillana*; G,H, *H. cavernicola*; I,J, *H. hermitis*; K-N, *H. renibulbis* (K,L, Aurukun, Queensland; M,N, Alligator R., Northern Territory). A,B,D,E,G-N, epigyna; C, eyes from front; F, ♂ palp.

DIAGNOSIS

Medium size. Median septum of epigynum heart-shaped narrowing posteriorly, as long as lateral lobes.

DESCRIPTION

Female: CL 8.0, CW 7.4, AL 9.4, AW 6.2. Spination: femora and patellae as in *marillana*, tibiae I-IV 2226. Epigynum (Fig. 13D,E): ridge on median septum is broad and short, poorly delineated. Insemination ducts with $3\frac{1}{2}$ coils, spermathecae with antero-prolateral lobe.

The male is unknown.

***Heteropoda hermitis* (Hogg) comb. nov.**
(Figs 13I,J; 14C,D; 18)

Olios hermitis Hogg, 1914: 85.

TYPE MATERIAL

SYNTYPES: 3 juvenile ♀♀ *Olios hermitis*, Hermite I., Montebello Islands, Western Australia, 20°28'S, 115°31'E, not examined.

OTHER MATERIAL

Western Australia: ♂, Barrow I., 20°46'S, 115°24'E, 10.ii.1977, H. Heatwole, W.H. Butler, WAM88/1940; ♀ Lowendal I., 20°39'S, 115°34'E, iii.1985, W.H. Butler, WAM88/1947; ♂ Woodstock Stn, 21°36'S, 118°58'E, 2.v.1988, J. Dell, WAM90/1170.

DIAGNOSIS

Large. Embolus arising antero-retrolaterally giving tegulum a kidney shape. Median septum of epigynum rounded distally; insemination duct with $3\frac{1}{2}$ coils.

DESCRIPTION

Male: CL 7.8, CW 7.0, AL 7.5, AW 4.5. Eyes: AR slightly recurved, PR recurved. Ratio AME:ALE:PME:PLE is 22:33:25:36. Legs: 21=43. Spination: femora I-III 323, IV 321; patellae I-IV 101; tibiae I-IV 2226. Long setae on metatarsus II. ♂ palp (Fig. 14C,D): ratios of cymbium length: cymbial tip is 1:0.4. Long, tapering conductor, tegular flange short. Tibial apophysis directed forwards tapering to a point, almost parallel to axis of cymbium.

Female: CL 10.7, CW 9.4, AL 11.2, AW 7.0. Eyes and leg spination similar to male. Epigynum (Fig. 13I,J): broad, rounded median septum, as long as lateral lobes; insemination ducts with $3\frac{1}{2}$ coils, spermathecae bilobed.

***Heteropoda cavernicola* sp.nov.**
(Figs 13G,H; 18)

TYPE MATERIAL

HOLOTYPE: ♀, Napier Range, entrance chamber of Old Napier Cave, Western Australia, 17°14'S, 124°41'E, 9.vii.1966, A.M. Douglas, G.W. Kendrick, WAM74/119.

ETYMOLOGY

From the Latin *caverna* meaning a cave.

DIAGNOSIS

Large. Median septum of epigynum oval, shorter than lateral lobes, insemination ducts with $3\frac{1}{2}$ coils.

DESCRIPTION

Female: CL 9.6, CW 8.6, AL 10.5, AW 6.6. Leg spination: several legs are missing, tibiae III, IV 2226, similar to *H. hermitis*. Epigynum (Fig. 13G,H): median septum shorter than lateral lobes otherwise like *H. hermitis* with $3\frac{1}{2}$ coils in insemination ducts and bilobed spermathecae.

The male is unknown.

***Heteropoda renibulbis* sp.nov.**
(Figs 2J; 13K-N; 14E,F; 18)

TYPE MATERIAL

HOLOTYPE: ♂, West Alligator R. mouth, Northern Territory, 12°15'S, 132°16'E, 22-24.vii.1979, GBM, DC, QMS15235.

PARATYPES: Northern Territory: ♂, Gorge NE of Mt Gilruth, 13°02'S, 133°05'E, 10-13.vii.1979, GBM, DC, QMS15119; ♀, Kemp Airstrip (rainforest) 12°34'S, 131°19'E, 24-25.vii.1979, GBM, DC, QMS15120, 2 ♀, Kemp Airstrip, 15-16.xi.1979, RJR, QMS15114; ♂, North Point, Kapalga, 12°36'S, 132°25'E, 19.vii.1979, GBM, DC, QMS15113; ♂, Radon Ck, 14-16.x.1979, GBM, DC, QMS15121; ♀, Radon Ck, 14.xi.1979, RJR, QMS15122; ♂, South Alligator Inn, 7-9.vii.1979, GBM, DC, QMS15111; 2 ♀, same locality, xi.1979, RJR, QMS15112; ♂, West Alligator R. mouth, 12°15'S, 132°15'E, 20-22.vii.1979, GBM, DC, QMS15117; ♀, same locality, 22-24.vii.1979, GBM, DC, QMS15236; 4 ♀. West Alligator Mouth, xi.1979, RJR, QMS15116; ♀, Darwin, 12°27'S, 130°15'E, 22.viii.1963, F. Cosmos, WAM88/1959; ♀, Darwin, 1969, A.D. Smith, WAM88/1960; ♀, ♂, Kakadu, 17.viii.1980, H. Parnaby, AMKS19553; ♀, same data, AMKS20471; ♀, Daly R., G.C. Chapman, A.E. Shaw, 1913, VMK3007. Western Australia: 2 ♀, Wotjulum Mission, via Derby, 17°19'S, 123°38'E, x.1955, A. Douglas, WAM88/927.

88/928; Northeastern Queensland: ♀, Aurukun, 13°21'S, 141°44'S, Cape York Peninsula, xi.1978, GJI, QMS15241; 2 ♀, Aurukun, xi.1978, GJI, QMS15115; ♂, Normanby Stn. via Cooktown, iii.1985, D. Bell, QMS15123. Torres Strait: ♀, Horn I., 10°37'S, 142°17'E, 24-27.i.1975, RJR, QMS15125; ♀, Badu I., 10°07'S, 142°07'E, 20.xii.1976, H. Heatwole et al., QMS15124.

OTHER MATERIAL

♀ (fragments), rainforest site 11/1, SW Osborne I., 14°23'S, 125°57'E, vi.1988, B.Y. Main, BYM 1988/K759.

ETYMOLOGY

From the Latin *ren* meaning kidney and *bulbis* meaning swelling, referring to the kidney-shaped tegulum of the ♂ palp.

DIAGNOSIS

Large. Elongate cymbium. Kidney-shaped tegulum; embolus arising antero-retrolaterally; tegular flange short, broad, postero-retrolateral. Median septum of epigynum longer than wide, ridge running about half length of septum, insemination ducts with 6-7 coils.

DESCRIPTION

Male: CL 11.3, CW 10.4, AL 12.2, AW 6.2. Legs 2143. Spination: femora I-III 323, IV 321, patellae I-IV 101, tibiae I-II 2226, III, IV 2126. ♂ palp (Fig. 14E,F): ratio of length of cymbium: cymbial tip is 1:0.5; tibial apophysis broad, bluntly pointed, almost parallel to axis of cymbium.

Female: CL 11.5, CW 10.6, AL 15.5, AW 9.7. Spination: similar to male without dorsal spines on tibiae I, II 2026. Epigynum (Fig. 13K-N): median septum as long as lateral lobes; insemination ducts with 6½ coils.

REMARKS

The females from Aurukun differ in having 6 coils in insemination ducts; the male from Cape York Peninsula is similar to *renibulbis*. Females from the Torres Strait vary from 5-7 coils in insemination ducts; no males have been collected from these localities.

***Heteropoda kalbarri* sp.nov.**
(Figs 15A,B; 18)

TYPE MATERIAL

HOLOTYPE: ♀, Kalbarri National Park, Western Australia, 27°48'S, 114°28'E, 12-17.i.1969, Kalbarri Survey, WAM88/1945.

PARATYPE: ♀ Wal-Arrie Pool, Western Australia, 25°47'S, 115°58'E, 7.v.1989, D. Knowles, WAM90/827.

ETYMOLOGY

From the type locality, Kalbarri National Park.

DIAGNOSIS

Large. Median septum of epigynum broadening in middle.

DESCRIPTION

Female: CL 12.5, CW 11.0. Abdomen damaged. Spination: femora I-III 323, IV 322; patellae I-IV 101; tibiae I, II 2026, III, IV 2226. Epigynum (Fig. 15A,B): longitudinal ridge along length of median septum, insemination ducts with 5 coils, spermathecae bi-lobed.

The male is unknown.

***Heteropoda grooteeylandt* sp.nov.**
(Figs 13H; 15C; 18)

TYPE MATERIAL

HOLOTYPE: ♀, Groote Eylandt, Gulf of Carpentaria, Northern Territory, 14°06'S, 136°28'E, 4.i.1929, Rev. Warren, AMKS19630.

ETYMOLOGY

From the type locality, Groote Eylandt.

DIAGNOSIS

Large. Median septum of epigynum longer than lateral lobes; ridge running length of septum.

DESCRIPTION

Female: CL 13.1, CW 10.7, AL 14.0, AW 8.0. Spination: femora I-III 323, IV 321; patellae I-IV 101, tibiae I-III 2026; IV 2126. Epigynum (Fig. 15C,D): median septum truncated with ridge running almost length of septum; insemination ducts with 5 coils; spermathecae roughly tri-lobed.

The male is unknown.

***Yiinthi* gen.nov.**

ETYMOLOGY

Yiinthi is the Aboriginal word for a large brown ground-living spider in the Lochhart region of Cape York Peninsula, northern Queensland. The genus is feminine.

TYPE SPECIES

Yiinthi spathula sp.nov.

DIAGNOSIS

Carapace with pale cephalic region, in some females limited to a pale line from fovea to eye group. Dorsal abdomen with pale, cardiac region. MOQ slightly longer than wide. Postero-retrolateral area of ♂ cymbium usually extended posteriorly and slightly concave ventrally. Long, thick embolic structure with 'pars pendula' and sub-terminal flagellum (see arrow in Fig. 14G). Conductor arising mid-prolaterally, spoon-shaped distally. Without tegular process. Tibial apophysis digitiform, with or without projection on anterior edge. Wide short ♀ insemination ducts; loosely looped, elongate spermathecae.

DESCRIPTION

General colour pattern similar to *Heteropoda*. Thoracic region of carapace pale orange-brown centrally, darker laterally. Dark crescent-shaped area around posterior end of fovea; pale band posterior to this. Three pairs of dark spots with chevron-shaped posterior marking (cf. broad W marking of *Heteropoda*). Venter with or without pattern. Legs laterigrade, 2143, 21=43 or 2413. Scopula on all metatarsi and tarsi, thinning proximally on metatarsi III, IV.

KEY TO *YIINTHI* SPP.

1. Small, medium or large spiders. Brown trapezoid area of venter with two pale bands laterally and two pale lines paramedially. Simple entrance to ♀ insemination ducts (Fig. 15L) *spathula* group2
- Small. Trapezoid area of venter pale, with or without mottling. Chitinous intucking at entrance to ♀ insemination ducts (Fig. 17J) ... *kakadu* group6
2. ♂ embolus with obvious *pars pendula* (Fig. 15I); post-flagellar portion curved, pointed or blunt. ♀ median septum long with small transverse bar 3
- ♂ embolus with reduced *pars pendula* (Fig. 17K); post-flagellar portion short, straight; pointed. ♀ median septum, short, with deep tongue-like bar 5
3. Pre-flagellar embolus smooth-edged (Fig. 15M). Tibial apophysis with pointed projection on anterior edge. Epigynal fossae oval in shape (Fig. 15K) 4
- Pre-flagellar embolus with sinuous, flanged edge. Tibial apophysis with rounded projection on anterior edge (Fig. 14H). Epigynal fossae inverted pear-shape (Fig. 15G) *lycodes*
4. Medium size. Long embolic flagellum; post-flagellar embolus curved and pointed (Fig. 15M). ♀ insemination duct with small dorsal lobe (Fig. 4D) *spathula*
- Large. Short embolic flagellum; post-flagellar embolus straight, blunt (Fig. 17C). ♀ insemination duct with large dorsal lobe (Fig. 17B) *chillagoe*
5. Large. Post-flagellar portion of embolus very short (Fig. 17K). ♂ tibial apophysis with small pointed process on anterior edge. Three dorsal spines on ♂ tibiae (♀ not known) *molloyensis*
- Small. Post-flagellum portion of embolus short, pointed (Fig. 17G). ♂ tibial apophysis with pointed spur on anterior edge (Fig. 17H). Two dorsal spines on ♂ tibiae *anzsesorum*
6. Thick, smooth, tapering ♂ embolus with long tapering spiral flagellum (Fig. 16E). ♀ median septum with short transverse bar (Fig. 17I) *kakadu*
- Very broad embolus with short, straight flagellum; *pars pendula* well-developed (Fig. 16I). ♀ median septum with broad transverse bar, anchor-shaped (Fig. 17M,O)7
7. ♀ insemination ducts with lateral lobe (Fig. 17N) *gallonae*
- ♀ insemination duct without lateral lobe (Fig. 17P) (♂ not known) *torresiana*

THE *SPATHULA* GROUP

Medium to large spiders. Venter with brown trapezoid area with two pale bands laterally and two discontinuous lines para-medially. Projection on anterior edge of ♂ tibial apophysis. Epigynum without chitinous intucking at gonopores.

Yiinthi spathula sp.nov., *Y. lycodes* (Thorell), and the new species *Y. chillagoe*, *Y. molloyensis*, and *Y. anzsesorum*.

Yiinthi lycodes (Thorell, 1881) comb.nov.
(Figs 14G,H; 15E-J; 20)

Heteropoda lycodes Thorell, 1881: 282, 697.

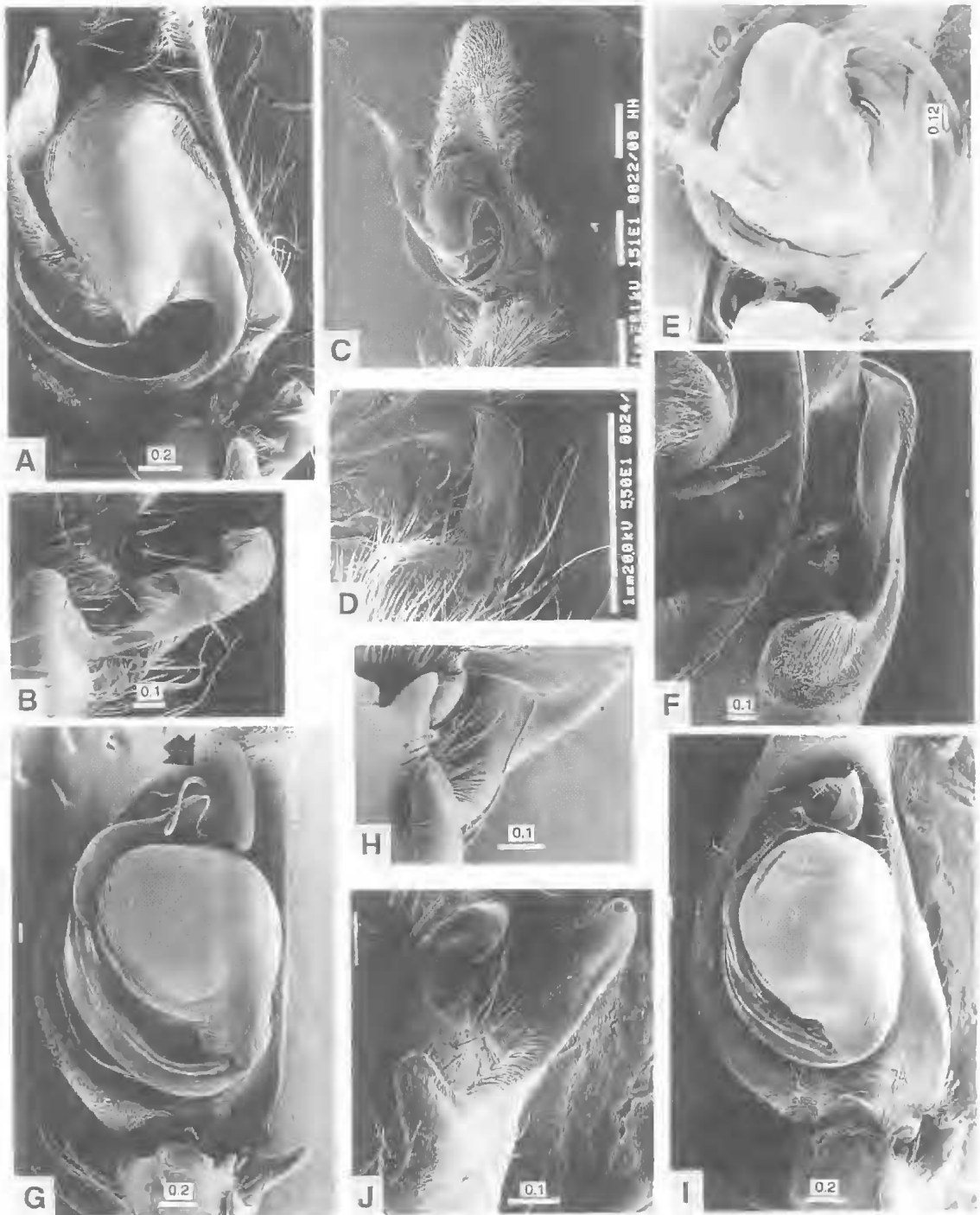


FIG. 14. A,B, *Heteropoda cooloola*; C,D, *H. hermitis*; E,F, *H. renibulbus*; G,H, *Yiinthe lycodes*; (G, arrow to flagellum); I,J, *Y. spathula*. A-J, ♂ palps and tibial apophyses.

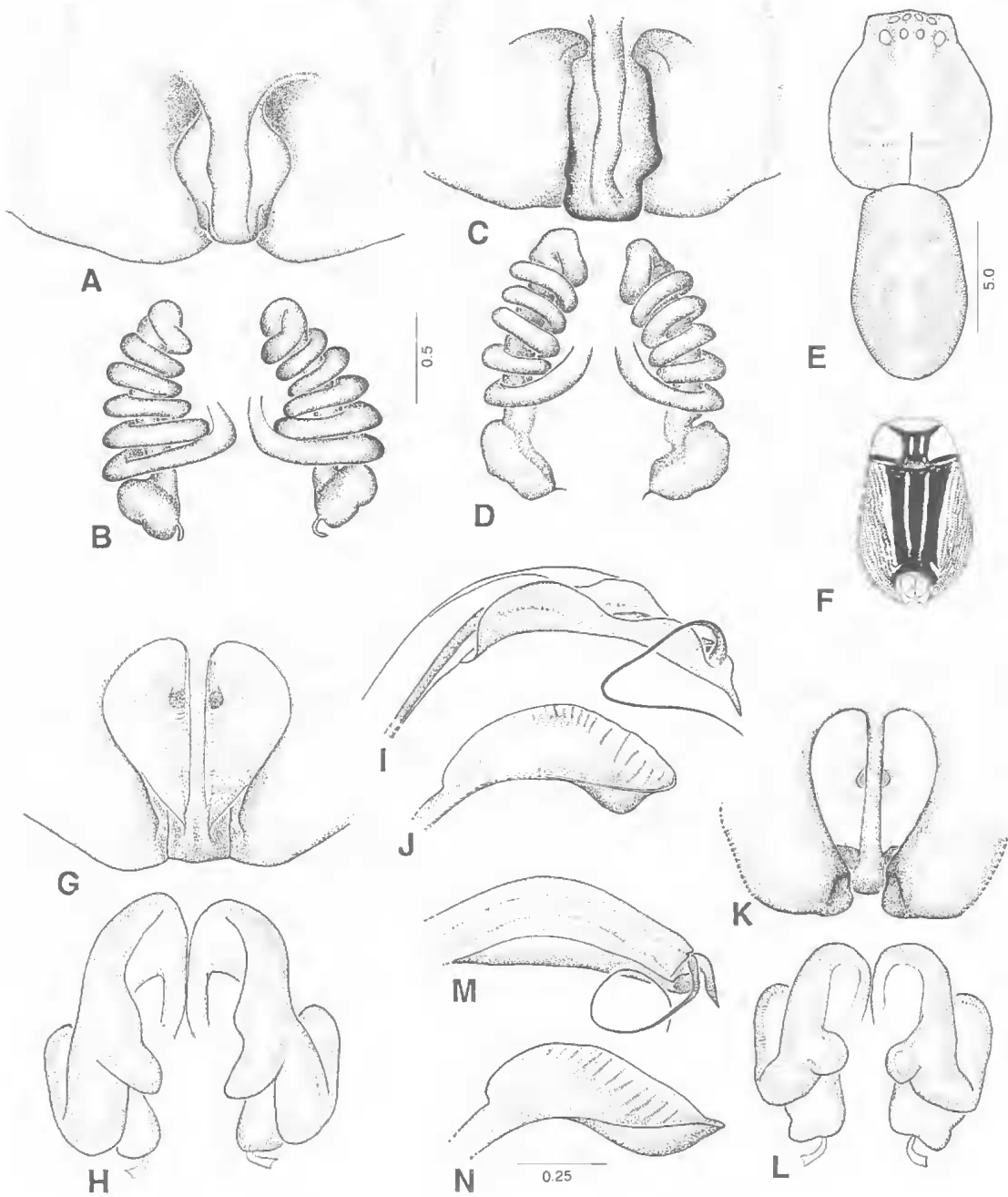


FIG. 15. A,B, *Heteropoda kalbarri*; C,D, *H. grooteeylandt*; E-J, *Yiinthi lycodes*; K-N, *Y. spathula*. A-D,G,H,K,L, epigyna; E, dorsal; F, ventral abdomen; I,J,M,N, emboli and conductors.

Heteropoda fusciventris Chrysanthus, 1965: 366, figs. 52-58, 65 - new synonymy.

TYPE MATERIAL

SYNTYPES: ♂, 2 juv., Somerset, Cape York, 10°45'S, 142°35'E, L.M. D'Albertis, MCG.

OTHER MATERIAL

Holotype ♀, allotype ♂, 5 ♀, 8 ♂, Merauke, Irian Jaya, 8°30'S, 140°22'E, 1956/1957, Br. Monulf, RMNH (types of *Heteropoda fusciventris*); ♂, Lock-erbie Scrib, QMS14992; 2 ♀, same data, QMS15000; ♂, 4 juv. QMS14989; ♂, Lake Boronto, QMS14984; ♀, Bamaga, QM 14991; ♀, Bamaga, QMS12493; ♀, Jardine R., QMS15002; ♂, Dulhanty R., QMS14988; 6 ♀, campsite Gordon Ck, Iron Ra., QMS14974; 3 ♀, 3 ♂, QMS14975; 2 ♀, QMS21194; ♂, ♂, Iron Ra., prey of *Poecilothomisus speciosus*, QMS15143; 1 ♂, Portland Roads, QMS14994; 2 ♀, Weatherstation Ck, QMS15003; ♂, Silver Plains, QMS15004; ♀, Cape Flattery, QMS21190; ♀, Cooktown, QMS14987; 3 ♂, 5 ♀, Mt Cook, QMS14990; 1 ♂, 8 ♀, egg sac, same data, QMS14979; ♀, Amos Bay, QMS14998; 2 ♀, QMS14985; Home Rule: QMS14983; 2 ♂, 2 ♀, QMS14986; ♂, 5 ♀, QMS14980; 9 ♂, 5 ♀, Shiptons Flat, QMS14977; 4 ♂, 6 ♀, Gap Ck, Twelve Mile Scrub, QMS14981. All in northern Queensland.

DIAGNOSIS

Medium-sized spiders. Pre-flagellar portion of ♂ embolus sinuous; embolic tip almost straight; tibial apophysis with rounded projection on anterior edge. Inverted pear-shaped fossae on either side of ♀ median septum.

DESCRIPTION

Male (syntype): CL 8.00, CS 6.7, AL 7.3, AW 4.7. Colour: carapace faded (Fig. 15E); abdomen dorsally brown with lighter-coloured median band; venter (Fig. 15F) brown, with dark brown trapezoid area with two converging white lines enclosed by light lateral bands; epigastric region with brown rectangular area and two elongate oval white areas. Spination: femora I-III 323, IV 321; patellae I-IV 101; tibiae I-III 2226, IV 2126. ♂ palp (Figs 14G,H; 15I,J): postero-retrolateral area of cymbium hollowed with rounded lateral projection. Tegulum a little longer than wide; distal spoon-shaped region of conductor with concavity facing cymbium. Tibial apophysis with rounded projection on anterior edge.

Female: CL 8.5, CS 8.1, AL 10.9, AW 6.3. Spination: femora I-II 323, III-IV 321; patellae I-IV 001; tibiae I-IV 2026. Epigynum (Fig. 15G,H): Long, narrow median septum, inverted

pear-shaped fossae; wide insemination ducts with lobe at junction of S-shaped spermathecae. The females vary in size.

REMARKS

Y. lycodes is widely distributed in North Queensland and is sympatric with *Y. spathula* at Iron Ra. It also occurs in Irian Jaya.

Yiinthi spathula sp.nov. (Figs 2D; 14I,J; 15K-N; 20)

TYPE MATERIAL

HOLOTYPE: ♂, Gordon Ck, Iron Range, northeastern Queensland, 12°44'S, 143°17'E, 23-30.vi.1976, VED, RJR, QMS15187.

PARATYPES: Iron Range: ♀, Gordon Ck, QMS15188, 15 ♂, 25 ♀, 23-30.vi.1976, VED, RJR, QMS14973; 2 ♀, egg sac, 24.vi.1976, VED, RJR, QMS15144; ♀, 28.vi.1976, RJR, QMS15146; ♂, 1-17.viii.1978, GVC, SVD, QMS15141. ♀, Lamond Hill, summit, 12°43'S, 143°18'E, VED, RJR, QMS15145; ♀ ♂, VED, RJR, QMS15142; ♀, Claudie R. xi.1913-ii.1914, J.A. Kershaw, VM.

ETYMOLOGY

From the Latin *spatha* meaning a spoon, referring to the spoon-shaped conductor of the ♂ palp.

DIAGNOSIS

Medium-sized. Pre-flagellar portion of embolus smooth-edged; embolic tip curved; tibial apophysis with pointed projection on anterior edge. Oval-shaped fossae on either side of ♀ median septum.

DESCRIPTION

Male (holotype): CL 7.6, CW 6.6, AL 6.9, AW 4.3. Spination: femora I-III 323, IEV 321; patellae I-IV 101; tibiae I-III 2226, IEV 2126. ♂ palp (Figs 14I,J; 15M,N): postero-retrolateral area of cymbium, flattened with small triangular projection laterally.

Female: CL 8.45, CW 7.4, AL 10.6, AW 7.7. Spination: femora I-III 323, IV 321; patellae I-IV 001; tibiae I-III 2026, IV 2126. Epigynum (Fig. 15K,L): long narrow median septum, oval fossae; wide insemination ducts with dorsal lobe at junction with looped, sac-like spermathecae. The females vary in size.

REMARKS

Y. spathula has been collected only from mesophyll vine forest from Iron Ra. in far north-eastern Queensland. The shapes of ♀ fossae and

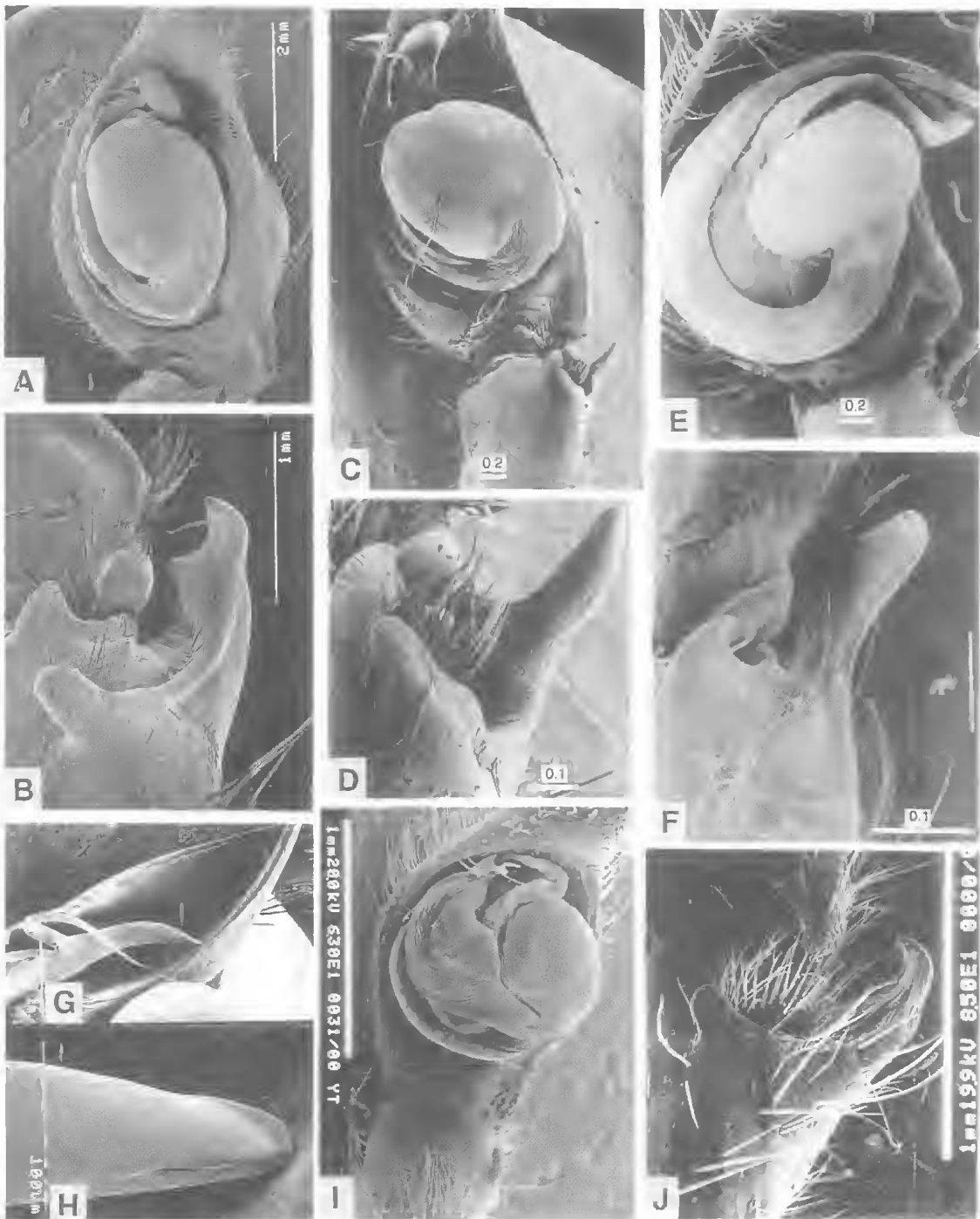


FIG. 16. A,B,G,H, *Yiinthe chillagoe*; C,D, *Y. molloyensis* (flagellum broken), E,F, *Y. kakadu*; I,J, *Y. gallonae*. A-F,I,J, ♂ palps and tibial apophyses; G, tip of embolus and conductor; H, tip of embolus.

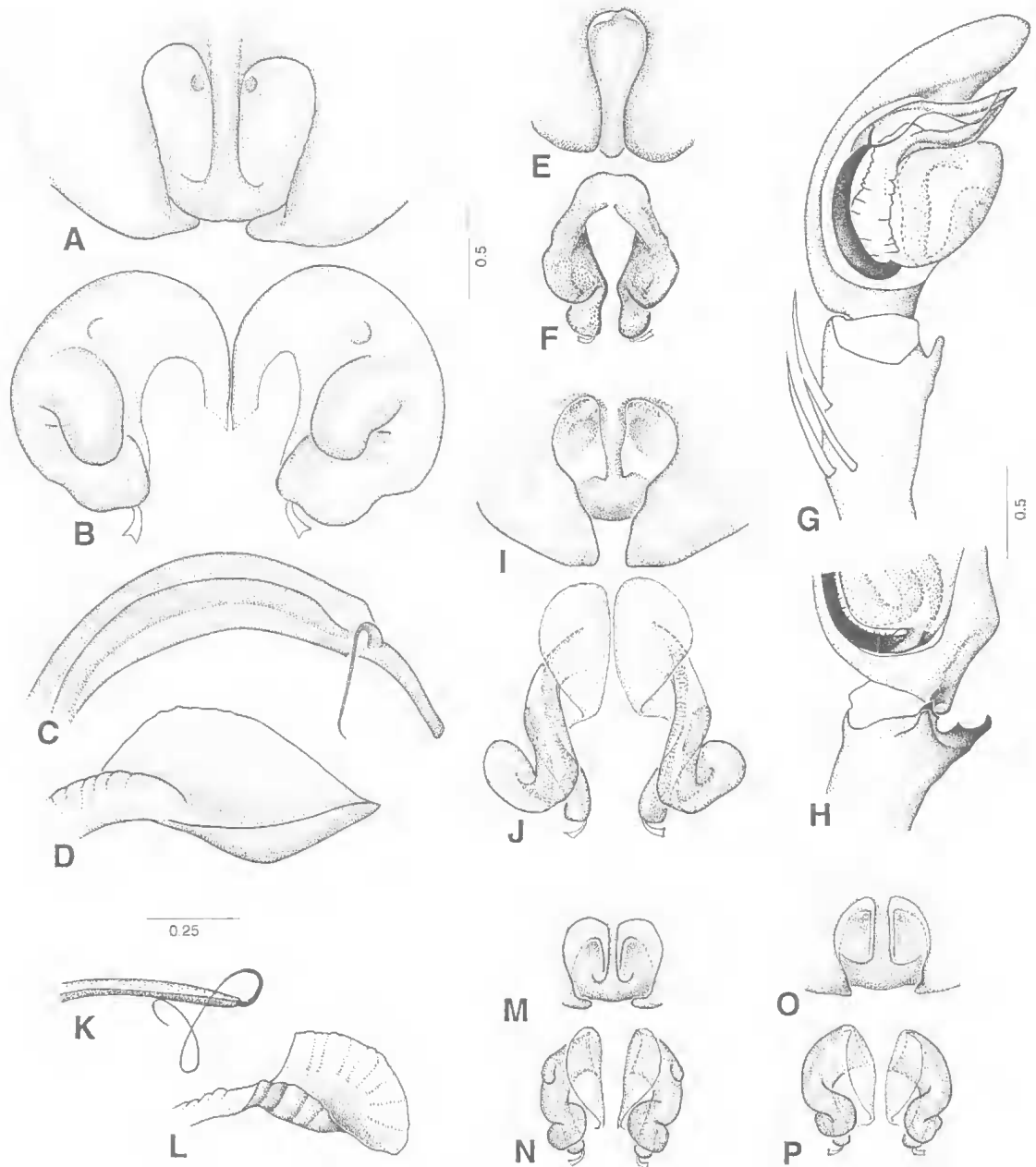


FIG. 17. A-D, *Yimthi chillagoe*; E-H, *Y. anzsesorum*; I, J, *Y. kakadu*; K, L, *Y. molloyensis*; M, N, *Y. gallonae*; O, P, *Y. torresiana*. A, B, E, F, I, J, M-P, epigyna; C, D, K, L, emboli and conductors; G, H, ♂ palp and tibial apophysis.

pre-flagellar embolus distinguish it from *Y. lycodes*.

***Yiinthi chillagoe* sp.nov.**
(Figs 16A,B,G,H; 17A-D; 20)

TYPE MATERIAL

HOLOTYPE: ♂, Donna Cave, Chillagoe, north Queensland, 17°09'S, 144°31'E, 4.vii.1984, F.D. Stone, F.G. Howarth, QMS14754.

PARATYPES: Chillagoe limestone caves: ♀, Markham Tower, Surprise Packet Cave, 30.vi.1984, F.G. Howarth, QMS14757; ♂, Suicide Tower, Christmas Pot Cave, 29.vi.1984, F.D. Stone, QMS14758; ♀, Royal Arch Cave, 2.vii.1984, F.D. Stone, QMS14755; ♀, Spring Cave, 28.vi.1984, F.G. Howarth, QMS14756; ♂, 18.vii.1978, R. Mascord, AMKS4131; ♀, same data, AMKS4132.

ETYMOLOGY

From Chillagoe, the type locality.

DIAGNOSIS

Large. Pre-flagellar portion of embolus smooth-edged, short flagellum, digitiform post-flagellar region. Tibial apophysis with pointed spur-like projection on anterior edge. Median septum broadening posteriorly to form transverse bar. Very wide insemination ducts with large dorsal lobes.

DESCRIPTION

Male (holotype): CL 11.9, CW 11.5, AL 10.8, AW 6.9. Spination: femora I-III 323, IV 321(2); patellae I,II 001, III, IV 101; tibiae I, II 2026, III, IV 2226. ♂ palp (Figs 16A,B,G,H; 17C,D): hairy cymbium, postero-retrolateral extension with large low rounded lateral projection.

Female: CL 12.7, CW 11.2, AL 11.5, AW 9.2. Spination: femora I-III 323, IV 321; patellae I, II 001, III, IV 101; tibiae I, II 2026, III, IV 2226. Epigynum (Fig. 17A,B).

***Yiinthi molloyensis* sp.nov.**
(Figs 16C,D; 17K,L; 20)

TYPE MATERIAL

HOLOTYPE: ♂, Mt Molloy, northeastern Queensland, 16°41'S, 145°20'E, (exact locality unknown) ix.1969, F. Little, QMS15238.

ETYMOLOGY

From Mt Molloy, the type locality.

DIAGNOSIS

Large. Embolus smooth with long fine flagellum; very short, straight post-flagellar embolic tip. Tibial apophysis with small pointed projection on anterior edge.

DESCRIPTION

Male (holotype): CL 9.4, CW 8.1, AL 9.8, AW 6.0. Spination: femora I-III 323, IV 321; patellae I-IV 101; tibiae I-IV 2326. ♂ palp (Figs 16C,D; 17K,L): postero-retrolateral area of cymbium hollowed without lateral projection. Tegulum almost as wide as long.

The female is unknown.

REMARKS

Y. molloyensis differs from other *Yiinthi* spp. by having 3 dorsal spines on ♂ tibiae.

***Yiinthi anzsesorum* sp.nov.**
(Figs 17E-H; 20)

TYPE MATERIAL

HOLOTYPE: ♂, Hann Tableland, 13km W of Mareeba, north Queensland, 17°00'S, 145°17'E, 2.xii.1988-17.i.1989, R. Storey, G. Dickinson, ex malaise trap, QDPI Ar1425, QMS21196.

PARATYPES: ♀, same data as holotype, QMS21197; ♀, creek camp nr McLeod, Windsor Tableland, 16°14'S, 145°02'E, 26-7.xii.1980, AE, QMS15197.

ETYMOLOGY

From the acronym, ANZSES for the Australian and New Zealand Schools Exploration Society, the collectors.

DIAGNOSIS

Small. Embolus smooth with long tapering flagellum; post-flagellar portion short, pointed. Membranous conductor, broadening slightly to sinuous boat-shape, pointed distally. Tibial apophysis tapering to curved tip; pointed process on anterior edge. Median septum barely apparent; lateral lobes converging giving a key-hole appearance to epigynum.

DESCRIPTION

Male (holotype): CL 5.0, CW 4.6, AL 5.0, AW 3.8. Legs 21=43. Spination: leg I missing; femora II, III 323, IV 321; patellae II-IV 101; tibiae II, III 2226, IV, 2126. ♂ palp (Fig. 17G,H): tegulum as wide as long, cymbium without postero-retrolateral extension.

Female: CL 5.0, CW 4.4, AL 7.2, AW 5.3. Spination: femora I-III 323, IV 321; patellae I, II,

IV 000, III 001; tibiae 1 1026, II-IV 2026. Epigynum (Fig. 17E,F).

THE KAKADU GROUP

Small spiders. Legs 21=43 or 2413. Venter without pattern or pale with some mottling. Without projection on anterior edge of ♂ tibial apophysis. Epigynum with chitinous intuckings at gonopores.

Yiinthe kakadu sp.nov., *Y. gallonae* sp.nov., *Y. torresiana* sp.nov.

***Yiinthe kakadu* sp.nov.**
(Figs 16E,F; 17I,J; 20)

TYPE MATERIAL

HOLOTYPE: ♂, Radon Ck, Mt Brockman, Kakadu National Park, Northern Territory, 12°45'S, 132°53'E, 14.xi.1979, RJR, QMS15195.

PARATYPES: Northern Territory: ♀, same data as holotype, QM S15196; ♀, Radon Ck, open forest, 14.xi.1979, QMS14834; 3 ♂, 2 ♀, South Alligator Inn, 12°40'S, 132°30'E, 7-9.xi.1979, RJR, QMS14836; 4 ♂, 2 ♀, West Alligator R. mouth, 12°11'S, 132°16'E,

10-12.xi.1979, RJR, QMS14837. ♀, same data, QMS14835. Western Australia: ♀, Walcott Inlet, 16°23'S, 124°29'E, 18.vi.1988, B.Y. Main, BYM 88/K1051; 2 ♀, Misery Spring, Old Lissadell Hmstd, 16°41'S, 128°33'E, 23.x.1971, RJM, WAM88/1967-8.

ETYMOLOGY

From the Kakadu National Park, the locality of the holotype and many of the paratypes.

DIAGNOSIS

Small. Venter without pattern. Thick smooth, tapering embolus with long tapering spiral flagellum, post flagellar embolus very short. Pale chitinous intuckings form dorsal flanges round openings to insemination ducts.

DESCRIPTION

Male (holotype): CL 5.8, CW 5.2, AL 6.9, AW 4.7. Legs 21=43. Spination: femora I-III 323, IV 321; patellae I-IV, 101; tibiae I, II 2226, III, IV 2126. ♂ palp (Fig. 16E,F): postero-retrolateral cymbium, hollowed without lateral projection. Posterior portion of tibial apophysis pointed.

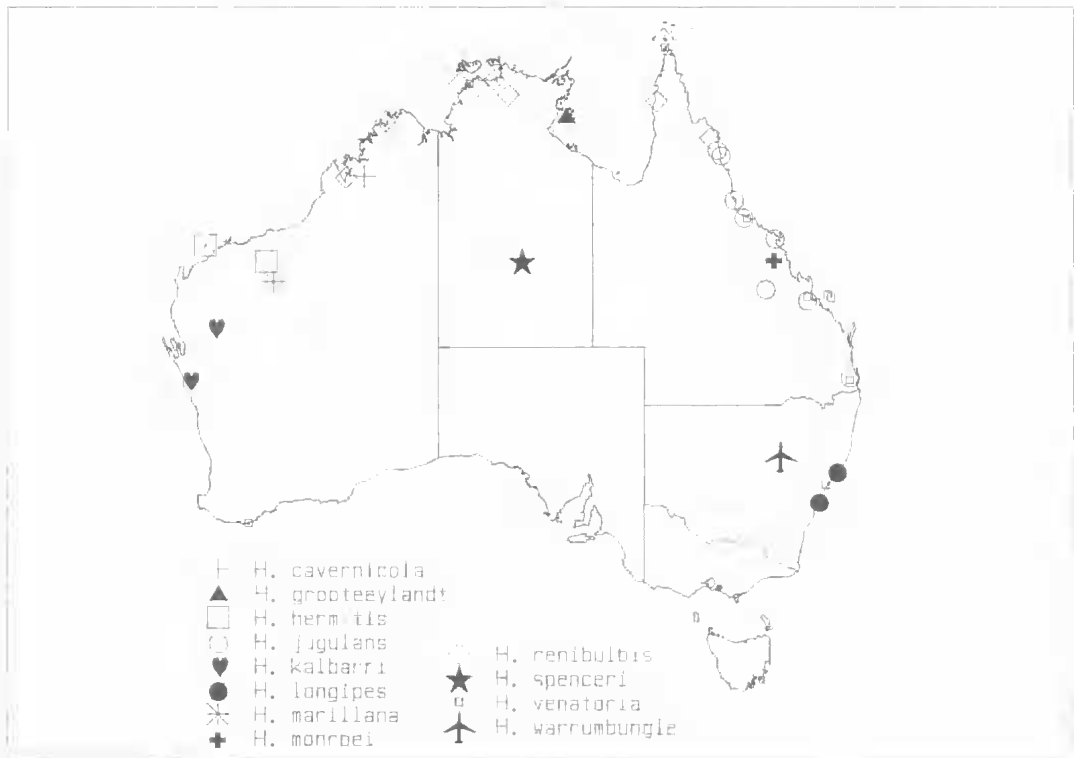


Fig. 18. Distribution of *Heteropoda* spp. in Australia.

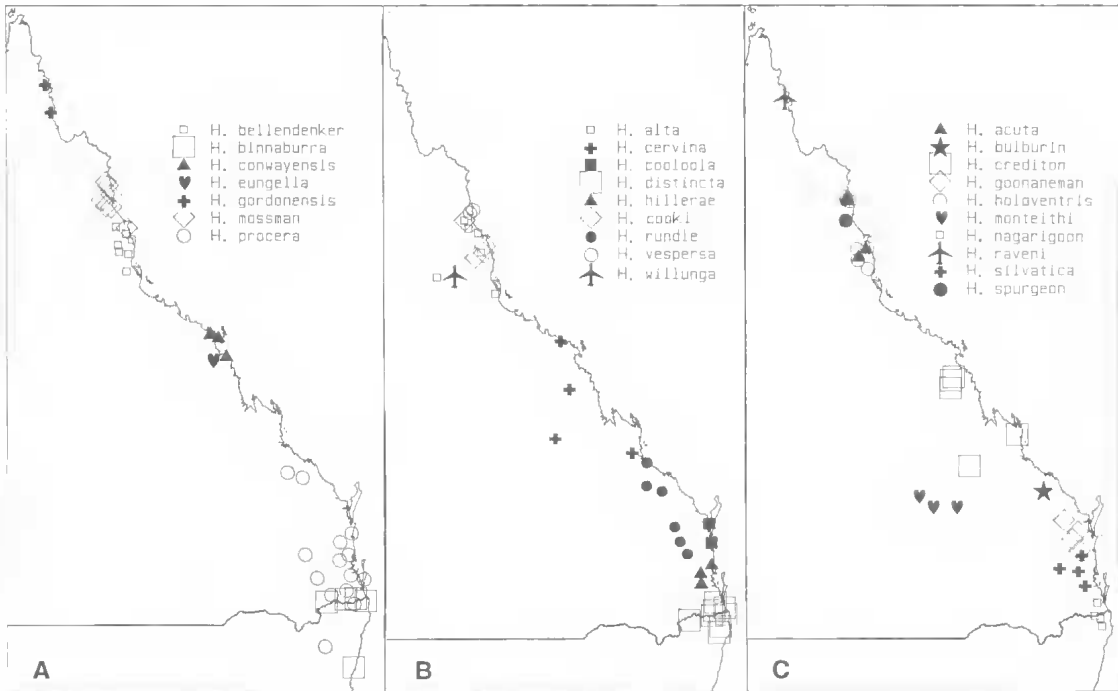


Fig. 19. A-C, distribution of *Heteropoda* spp. in Queensland and northern New South Wales.

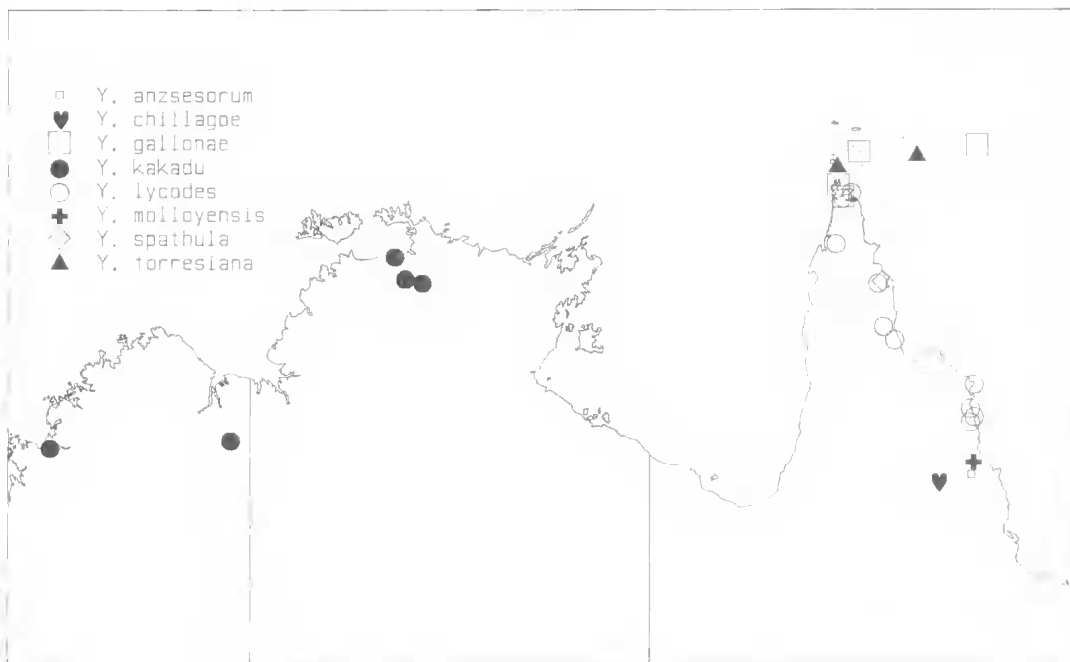


Fig. 20. Distribution of *Yiinthe* spp. in northern Australia.

Female: CL 5.8, Cw 5.2, AL 6.7, AW 4.2. Spination: femora I-III 323, IV 321; patellae I, III, IV 001, III 101; tibial I-IV 2026. Epigynum (Fig. 17I,J): lateral lobes converging; ♀ median septum with short transverse bar.

Yiinthi gallonae sp. nov.
(Figs 16I,J; 17M,N; 20)

TYPE MATERIAL

HOLOTYPE: ♂, Bamaga, northern Queensland, 10°53'S, 142°24'E, 8.xii.1986, JG, QMS21200.

PARATYPES: ♀, Lockerbie Scrub, Cape York, 9.xii.1986, JG, S13019; ♂ (freshly moulted), Lockerbie Scrub, 28.viii.1985, M. Bennie, QMS15007. Torres Strait: 2 ♂, Horn I, 10°37'S, 142°17'E, 2-8.xii.1986, JG, QMS12363; 2 ♂, ♀, Yorke Is, 9°44'S, 145°25'E, 27-28.xi.1986, JG, QMS21201; 5 ♀, same data, QMS12436; ♀, Yorke Is, 13.vii.1974, H. Heatwole, E. Cameron, QMS15148; ♂, 2 ♀, Yam I., 9°53'S, 142°45'E, 28.xi-2.xii.1986, JG, QMS12421.

ETYMOLOGY

In honour of the late Julie-Ann Gallon, collector of the holotype.

DIAGNOSIS

Small. Venter pale with mottling, embolus very broad; with short straight flagellum; *pars pendula* well developed with anterior sclerotized ridge. Conductor, broadly stalked, deep jug-shape distally. Pale chitinous intuckings round openings to ♀ insemination ducts; median septum anchor-shaped.

DESCRIPTION

Male (holotype): Cl 5.6, CW 5.2, AL 5.8, AW 3.8. Legs: 2413. Spination: femora I, II 323, III 313, IV 321; patellae I-III 101, IV 001; tibiae I, II 2226, III 22(1)26, IV 2126. ♂ palp (Fig. 16I,J): postero-retrolateral cymbium hollowed ventrally. Tibial apophysis stout, digitiform, inwardly curved tip.

Female: CL 4.6, CW 4.2, AL 5.1, AW 3.3. Pale venter with red-brown mottling. Legs 2413. Spination: femora I-III 323, IV 321; patellae I-III 000, IV 001; tibiae I 1026, II, III 2026, IV 2126. Epigynum (Fig. 17M,N): median septum anchor-shaped; insemination ducts with small lateral lobes.

Yiinthi torresiana sp. nov.
(Figs 17O,P; 20)

TYPE MATERIAL

HOLOTYPE: ♀, Moa I., Torres Strait, 10°11'S, 142°16'E, along fresh water creek, savannah woodland, 23.ii.1975, E. Cameron, QMS15199.

PARATYPES: 2 ♀, same data as holotype, QMS15147; ♀ Murray Is, 9°56'S, 144°04'E, vii-viii.1974, H. Heatwole, E. Cameron, QMS15149.

ETYMOLOGY

From Torres Strait, general locality of the islands.

DIAGNOSIS

Small. ♀ median septum anchor-shaped; chitinous intuckings at gonopores; insemination ducts without lateral lobes.

DESCRIPTION

Female (holotype): CL 5.4, CW 4.9, AL 7.1, AW 4.8. Venter mottled with pale trapezoid area. Legs 2413. Spination: femora I-III 323, IV 321; patella I 000, II-IV 001; tibiae I 1026, II-IV 2026. Epigynum (Fig. 17O,P).

The male is unknown.

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